

FMC Agreement No. 201132-005



Port Authority Lease No. L-PN-264
Supplement No. 5

SUPPLEMENTAL AGREEMENT

THIS AGREEMENT, made *ab initio* as of the first day of October, 2002, by and between **THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY** (hereinafter called the "Port Authority") and **PORT NEWARK CONTAINER TERMINAL LLC** (hereinafter called the "Lessee"),

WITNESSETH, That:

WHEREAS, heretofore and as of December 1, 2000, the Port Authority and the Lessee entered into an agreement of lease (the said agreement of lease, as it has heretofore been amended, modified and supplemented, being hereinafter called the "Lease") covering premises at Port Newark, in the City of Newark, County of Essex and State of New Jersey; and

WHEREAS, the Port Authority and the Lessee desire to add to the premises under the Lease and to amend the Lease in certain other respects;

NOW, THEREFORE, for and in consideration of the foregoing and the agreements hereinafter contained the Port Authority and the Lessee hereby agree as follows:

1. In addition to the premises heretofore let to the Lessee under the Lease, the letting of which shall continue in full force and effect upon all the terms, provisions, covenants and conditions of the Lease, the Port Authority hereby lets to the Lessee and the Lessee hires and takes from the Port Authority at Port Newark (hereinafter called the "Facility") in the City of Newark, in the County of Essex and State of New Jersey, the space shown in diagonal cross hatching outlined by the points numbered 1 through 6 on the sketch annexed hereto, marked "Exhibit A-1a" and hereby made a part hereof, together with all the buildings, structures, fixtures, improvements, additions, facilities and other property, if any, of the Port Authority located or to be located or constructed therein or thereon (the said space and all of the foregoing buildings, structures, fixtures, improvements, additions, facilities and other property, if any, of the Port Authority being hereinafter sometimes collectively called "Area A1A"), all of Area A1A to be and become a part of the premises under the Lease from and after October 8, 2002 (said date being hereinafter called the "Area A1A Commencement Date"), at 12:01 o'clock A.M. and continuing through the expiration or earlier termination of the Lease.

2. The Lessee shall use Area A1A for the purposes set forth in the Section of the Lease entitled "*Rights of User*" and for no other purpose whatsoever.

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3. (a) The Lessee shall pay to the Port Authority a basic rental for Area A1A (the "A1A Basic Rental") as follows:

(1) For the period from the Area A1A Commencement Date through November 30, 2004, at the annual rate of Two Hundred Forty-four Thousand Two Hundred Eighty-seven Dollars and Eighty-four Cents (\$244,287.84) payable in advance in equal monthly installments of Twenty Thousand Three Hundred Fifty-seven Dollars and Thirty-two Cents (\$20,357.32) on the Area A1A Rent Commencement Date, as defined in paragraph (b) of this Section, and on the first day of each calendar month thereafter through November 30, 2004;

(2) For the period from December 1, 2004, through November 30, 2005, at the annual rate of Seven Hundred Thirty-two Thousand Eight Hundred Sixty-three Dollars and Twenty-eight Cents (\$732,863.28) payable in advance in equal monthly installments of Sixty-one Thousand Seventy-one Dollars and Ninety-four Cents (\$61,071.94) on said December 1, 2004, and on the first day of each calendar month thereafter through November 30, 2005;

(3) For the period from December 1, 2005, through November 30, 2010, at the annual rate of Nine Hundred Seventy-seven Thousand One Hundred Fifty-one Dollars and No Cents (\$977,151.00) payable in advance in equal monthly installments of Eighty-one Thousand Four Hundred Twenty-nine Dollars and Twenty-five Cents (\$81,429.25) on said December 1, 2005, and on the first day of each calendar month thereafter through November 30, 2010, as the same shall be adjusted in accordance with the provisions of Section 4 of this Agreement; and

(4) For the period from December 1, 2010, throughout the balance of the term of the letting under the Lease, at an annual rate equal to the product obtained by multiplying (i) the adjusted annual basic rental for all of the premises shown on Sheets 1, 2, 3 and 4 of Exhibit A attached to the Lease pursuant to the provisions of Sections 3 and 4 of the Lease and paragraphs (d) and (e) of Section 2 of Supplement No. 4 thereto for the one-year period commencing on December 1, 2009, and ending on November 30, 2010, by (ii) a factor of Nine and Three Hundred Fourteen Thousandths Percent (.09314), subject to adjustment as set forth in the following sentences, payable in advance in equal monthly installments of one-twelfth of said annual amount on said December 1, 2010, and on the first day of each calendar month thereafter throughout the balance of the term of the letting under the Lease, as the same shall be adjusted in accordance with the provisions of Section 4 of this Agreement. The factor set forth in clause (ii) of this subparagraph (4) is the ratio of 653,858.4, being the size of Area A1A in rentable square feet, divided by 7,020,129.6, being the size in rentable square feet of the portions of the premises shown on Sheets 1, 2, 3, and 4 of Exhibit A attached to the Lease, in each case as of the effective date of this Agreement. In the event that a part of the portions of the premises shown on said sheets or a portion of Area A1A shall be surrendered to the Port Authority pursuant to written agreement with the Lessee or

additional areas at the facility shall be let to the Lessee at the same rate, and adjusted on the same basis, as set forth in Sections 3 and 4 of the Lease and paragraphs (d) and (e) of Section 2 of Supplement No. 4 thereto with respect to the portions of the premises shown on said sheets, then, in such event, the factor set forth in said clause (ii) shall be recomputed by dividing (W) the rentable square footage in Area A1A, as set forth above or, if a portion of Area A1A has been surrendered, as may be set forth in the agreement providing for such surrender, by (X) the rentable square footage in the continuing portions of the premises shown on said sheets, as set forth above, or if a part of the portions of the premises shown on said sheets has been surrendered to the Port Authority or additional areas at the facility shall be let to the Lessee at the rate set forth in said Sections of the Lease and Supplement No. 4 thereto, as set forth in the surrender agreement or the supplemental or other agreement providing for such surrender or for the letting of such additional area or areas at the facility, and rounding the result at five decimal places. In the further event that such agreement or agreements reducing the size of Area A1A or reducing or enlarging the portions of the premises let to the Lessee at the rates set forth in Sections 3 and 4 of the Lease and paragraphs (d) and (e) of Section 2 of Supplement No. 4 thereto do not set forth the size in rentable square feet of the areas surrendered or added, do not set forth the resulting size of Area A1A or of the portions of the premises let to the Lessee at such rates, and do not amend this subparagraph (4) to adjust the factor set forth in said clause (ii), or in the event that a part of Area A1A or of such portions of the premises shall be taken by condemnation or required by the Port Authority to comply with governmental requirements as provided in Section 19 of the Lease, then, in either event, the parties, acting in good faith, shall by agreement between them make such adjustment to said factor as they shall deem proper, prior to computing the basic rental for Area A1A for the one-year period commencing on December 1, 2009, and ending on November 30, 2010, as the same shall be adjusted in accordance with the provisions of Section 4 of this Agreement.

(b) For the purposes of this Agreement the term "Area A1A Rent Commencement Date" shall mean December 1, 2003.

4. The Area A1A Basic Rental set forth in subparagraphs (3) and (4) of paragraph (a) of Section 3 of this Agreement, as the same may have been most recently adjusted in accordance with this Section 4, shall be adjusted during the term of the letting in accordance with the provisions of this Section 4.

(a) As used in this Section:

(1) "Index" shall mean the Consumer Price Index for All Urban Consumers - New York-Northern New Jersey-Long Island, NY-NJ-CT (All Items, unadjusted 1982-84=100) published by the Bureau of Labor Statistics of the United States Department of Labor.

(2) "Area A1A Basic Rental Base Period" shall mean, as the context requires, the calendar month of November 2004 and the calendar month of November (excluding November 2029 and 2030) in each calendar year which thereafter occurs during the term of the letting under this Agreement.

(3) "Area A1A Basic Rental Adjustment Period" shall mean, as the context requires, the calendar month of November 2005 and the calendar month of November (excluding November 2030) in each calendar year which thereafter occurs during the term of the letting under this Agreement.

(4) "Area A1A Basic Rental Adjustment Date" shall mean, as the context requires, December 1, 2005, and each anniversary of such date which thereafter occurs during the term of the letting under this Agreement.

(5) "Area A1A Basic Rental Percentage Increase" shall mean the percentage of increase in the Index on each Area A1A Basic Rental Adjustment Date equal to a fraction, the numerator of which shall be the Index for Area A1A Basic Rental Adjustment Period immediately preceding such Area A1A Basic Rental Adjustment Date less the Index for Area A1A Basic Rental Base Period preceding such Area A1A Basic Rental Adjustment Period by one year and the denominator of which shall be the Index for Area A1A Basic Rental Base Period preceding such Area A1A Basic Rental Adjustment Period by one year.

(b) Commencing on each Area A1A Basic Rental Adjustment Date and for the period commencing with such Area A1A Basic Rental Adjustment Date and continuing through to the day preceding the next Area A1A Basic Rental Adjustment Date, or the expiration date of the term of the letting under this Agreement, as the case may be, both dates inclusive, in lieu of Area A1A Basic Rental set forth in subparagraphs (3) and (4) of paragraph (a) of this Section 3 of this Agreement the Lessee shall pay an Area A1A Basic Rental at a rate per annum equal to the greater of:

(1) the sum obtained by adding to the Area A1A Basic Rental payable immediately prior to such Area A1A Basic Rental Adjustment Date (including all amounts included therein as a result of prior adjustments thereof pursuant to the provisions of this paragraph) the product obtained by multiplying such Area A1A Basic Rental by one hundred percent (100%) of the Area A1A Basic Rental Percentage Increase for such Area A1A Basic Rental Adjustment Date; *provided, however*, that for purposes of the calculation of the Area A1A Basic Rental payable for the one-year periods commencing on December 1, 2005, and December 1, 2010, the Area A1A Basic Rentals payable immediately prior to such Area A1A Basic Rental Adjustment Date shall be deemed to be the annual amounts set forth in subparagraphs (3) and (4), respectively, of paragraph (a) of Section 3 of this Agreement; or

(2) the product obtained by multiplying the Area A1A Basic Rental payable immediately prior to such Area A1A Basic Rental Adjustment Date

(including all amounts included therein as a result of prior adjustments thereof pursuant to the provisions of this paragraph) by one hundred two and five tenths percent (102.5%); *provided, however*, that for purposes of the calculation of Area A1A Basic Rental payable for the one-year periods commencing on December 1, 2005, and December 1, 2010, the Area A1A Basic Rental payable immediately prior to such Area A1A Basic Rental Adjustment Date shall be deemed to be the annual amounts set forth in subparagraphs (3) and (4), respectively, of paragraph (a) of Section 3 of this Agreement.

(c) Notwithstanding any other provision of this Agreement, the Area A1A Basic Rental that shall be payable pursuant to subparagraphs (3) and (4) of paragraph (a) of Section 3 of this Agreement and this Section commencing with each Area A1A Basic Rental Adjustment Date and continuing through to the day preceding the following Area A1A Basic Rental Adjustment Date, or the expiration date of the term of the letting under this Agreement, as the case may be, both dates inclusive, shall in no event exceed the product obtained by multiplying the Area A1A Basic Rental payable immediately prior to such Area A1A Basic Rental Adjustment Date (including all amounts included therein as a result of prior adjustments thereof pursuant to the provisions of this paragraph) by one hundred four percent (104%); *provided, however*, that for purposes of the calculation of the Area A1A Basic Rental payable for the one-year periods commencing on December 1, 2005, and December 1, 2010, the Area A1A Basic Rental payable immediately prior to such Area A1A Basic Rental Adjustment Date shall be deemed to be the annual amounts set forth in subparagraphs (3) and (4), respectively, of paragraph (a) of Section 3 of this Agreement. For example, if the Area A1A Basic Rental Percentage Increase for the calendar month of November, 2005, is shown to be three percent (3%) then the Area A1A Basic Rental payable under subparagraph (3) of paragraph (a) of Section 3 of this Agreement and this Section for the one-year period commencing December 1, 2005, shall be Nine Hundred Seventy-seven Thousand One Hundred Fifty-one Dollars and No Cents (\$977,151.00) plus three percent (3%) thereof or One Million Six Hundred Thousand Four Hundred Sixty-five Dollars and Fifty-three Cents (\$1,006,465.53), but if (1) said increase is shown to be two and four tenths percent (2.4%) or less then the Area A1A Basic Rental for that one-year period shall be One Million One Hundred Thousand Five Hundred Seventy-nine Dollars and Seventy-eight Cents (\$1,001,579.78), and if (2) said increase is shown to be five percent (5%) or more then the basic annual rental for that one-year period shall be One Million Sixteen Hundred Thousand Two Hundred Thirty-seven Dollars and Four Cents (\$1,016,237.04).

(d) In the event the Index to be used in computing any adjustment referred to in paragraph (b) of this Section is not available on the effective date of such adjustment, the Lessee shall continue to pay the Area A1A Basic Rental at the annual rate then in effect subject to retroactive adjustment at such time as the specified Index becomes available, *provided, however*, that the Port Authority may at its option substitute for such Index the Index for the latest preceding month then published to constitute the specified Index. In the event the United States Consumer Price Index for All Urban Consumers - New York-Northern New Jersey-Long Island, NY-NJ-CT (All Items, unadjusted 1982-84=100) shall hereafter be converted to a different standard reference base or otherwise revised or the United States Department of Labor shall cease to publish the United States Consumer Price Index for All Urban Consumers - New York-Northern New Jersey-Long Island, NY-NJ-CT (All Items,

unadjusted 1982-84=100), then for the purposes hereof there shall be substituted for the Index such other appropriate index or indices properly reflecting changes in the value of current United States money in a manner similar to that established in the Index used in the latest adjustment as the Port Authority may in its discretion determine.

(e) If after an adjustment in Area A1A Basic Rental shall have been fixed for any period, the Index used for computing such adjustment shall be changed or adjusted, then the rental adjustment for that period shall be recomputed and from and after notification of the change or adjustment, the Lessee shall make payments based upon the recomputed rental and upon demand shall pay any excess in Area A1A Basic Rental due for such period as recomputed over amounts theretofore actually paid on account of Area A1A Basic Rental for such period. If such change or adjustment results in a reduction in Area A1A Basic Rental due for any period prior to notification, the Port Authority will credit the Lessee with the difference between Area A1A Basic Rental as recomputed for that period and amounts of Area A1A Basic Rental actually paid.

(f) If any adjustment of Area A1A Basic Rental referred to in this Section is effective on a day other than the first day of a calendar month, there shall be payable in advance on the effective date of the rental adjustment an installment of Area A1A Basic Rental equal to 1/12th of the increment of the annual Area A1A Basic Rental as adjusted multiplied by a fraction, the numerator of which shall be the number of days from the effective date of the rental adjustment to the end of the calendar month in which the rental adjustment was effective and the denominator of which shall be the number of days in that calendar month.

5. (a) Effective as of the date of the Lease, Section 45 of the Lease shall be deleted in its entirety and shall be of no force or effect.

(b) Effective as of the date of the Lease, the words and figure, "Two Million Dollars and No Cents (\$2,000,000.00)", set forth in the seventeenth and eighteenth lines of Section 8B of the Lease shall be deemed deleted and the words and figure, "Three Million Eight Hundred Thousand Dollars and No Cents (\$3,800,000.00)", shall be deemed inserted in lieu thereof, and for all the purposes of the Lease the term "Wharf Rehabilitation Reimbursement Amount" shall mean up to Three Million Eight Hundred Thousand Dollars and No Cents (\$3,800,000.00).

(c) Effective as of the date of Supplement No. 1 to the Lease, paragraph (b) of Section 6 of said Supplement No. 1 shall be deemed deleted and the following shall be deemed inserted in lieu thereof:

"(b) 'Rental Commencement Date' shall mean October 1, 2002."

(d) Effective as of the date of Supplement No. 1 to the Lease, Section 12 of said Supplement No. 1 shall be deemed deleted in its entirety.

(e) Effective as of the date of Supplement No.1 to the Lease, the words and figure, "Five Hundred Thousand Dollars and No Cents (\$500,000.00)", set forth in the eighth and ninth lines of paragraph (p) of Section 9 of said Supplement No.1 shall be deemed deleted and the words and figure, "Nine Hundred Seventy Thousand Dollars and No Cents (\$970,000.00)", shall be deemed inserted in lieu thereof, and for all the purposes of said Supplement No. 1 the term "Construction Work Reimbursement Amount" shall mean the lesser of (1) the reasonable cost, as defined in said Supplement No.1, of the Lessee's Construction Work (as also defined therein), or (2) Nine Hundred Seventy Thousand Dollars and No Cents (\$970,000.00).

(f) Effective as of January 1, 2004, (1) paragraphs (b), (c) and (d) of Section 41 of the Lease entitled "*Terminal Guarantee*" shall be deemed deleted and Addendum A attached to this Agreement and incorporated by reference herein shall be deemed inserted in lieu thereof; (2) paragraphs (f) and (g) of said Section 41 shall be deemed deleted and Addendum B attached to this Agreement and incorporated by reference herein shall be deemed inserted in lieu thereof; and (3) Schedule D and Schedule E attached to the Lease shall be deemed deleted and Schedule D and Schedule E attached to this Agreement and incorporated by reference herein shall be deemed substituted therefor. From and after January 1, 2004, the Lessee shall pay the Guaranteed Rental, as defined in the Lease as amended hereby, in accordance with the provisions of said Section 41 as so amended.

(g) On or before December 31, 2005, the Lessee shall purchase not less than four (4) straddle container carriers for use at the premises under the Lease, as amended hereby, which straddle carriers shall have an aggregate cost of not less than three million dollars and no cents (\$3,000,000.00) and the Lessee shall supply to the Port Authority evidence satisfactory to it of such purchase and of the location of such straddle carriers.

6. (a) The Lessee acknowledges that it has not relied upon any representation or statement of the Port Authority or its Commissioners, officers, employees or agents as to the condition of Area A1A or the suitability thereof for the operations permitted on Area A1A by this Agreement. The Port Authority shall deliver Area A1A in its presently existing "as is" condition. The Lessee, prior to the execution of this Agreement, thoroughly examined Area A1A as existing and has found the same to be suitable and satisfactory for the operations of the Lessee contemplated and permitted under this Agreement. The Lessee agrees to and shall take Area A1A in its "as is" condition and, except as expressly provided in Section 7 of this Agreement with respect to the Remediation Work (as defined in paragraph (a) of Section 7 of this Agreement), the Port Authority shall have no obligations under this Agreement for finishing work or preparation of any portion of Area A1A for the Lessee's use. The Lessee agrees that no portion of Area A1A will be used initially or at any time during the letting which is in a condition unsafe or improper for the conduct of the operations of the Lessee, so that there is possibility of injury or damage to life or property, and the lessee further agrees that before any use it will immediately correct any such unsafe or improper condition.

(b) The Lessee agrees to perform at its sole cost and expense, except as provided in paragraphs (c), (d) and (e) of this Section, all demolition work and all construction and installation work that it may require to prepare Area A1A for its use, including without limitation thereto all work necessary to prepare Area A1A for the Lessee's container operations (hereinafter sometimes called the "Area A1A Construction Work"), pursuant to the applicable provisions of the Lease, including without limitation Sections 8 and 20 thereof entitled "*Construction by the Lessee*", excluding paragraphs (a) and (o) of said Section 8, and for the purpose of said provisions, the term "the Lessee's Construction Work" shall be deemed to include the Area A1A Construction Work and the term "Specific Work Items" shall be deemed to include each of the individual items of work set forth in subparagraphs (1) through (4) of this paragraph. The Lessee will perform the Area A1A Construction work in compliance with the requirements of such Lease provisions, including without limitation thereto the requirement that all Area A1A Construction work be performed in accordance with a Construction Application and plans and specification approved by the Port Authority and, in the case of all Area A1A Construction Work performed subsequent to November 20, 2003, in accordance with the requirements of the plans and certifications enumerated on Exhibit S, attached hereto and hereby made a part hereof, which plans and certifications, prior to the commencement of such Area A1A Construction Work, shall be delivered to the Port Authority and shall be acceptable to and approved by the Port Authority in its sole discretion. The Lessee shall perform the following items of construction work as part of the Area A1A Construction Work:

(1) the paving of the entire open area of Area A1A in a manner suitable for the Lessee's container operations, including the installation of any necessary lighting towers, lighting fixtures and related underground electrical, storm drain and water utility pipes, conduits, mains and wires, the excavation of all geotechnically unsuitable material, the screening of large debris from such material, the reuse of a portion of such material as a base for the new pavement and the disposal of the remaining material excavated or removed from Area A1A in connection with such paving, but excluding any material excavated, removed and disposed of as part of the Remediation Work (such paving, installation, screening, reuse and disposal being hereinafter called the "Paving Work");

(2) the installation of approximately two thousand three hundred (2,300) feet of twelve inch (12") water main on the premises under the Lease, as amended hereby, near Starboard Street and the disposal of any material excavated or removed from Area A1A in connection with such installation (hereinafter called the "Water Main Work");

(3) the demolition of the building numbered 186 at the northwest corner of the premises under the Lease, shown on Sheets 1 and 2 of Exhibit A attached to the Lease (hereinafter called the "Demolition Work"); and

(4) the performance by the Lessee of that portion of the Remediation Work which the Port Authority shall designate by notice to the Lessee as set forth in subparagraph (2) of paragraph (a) of Section 7 of this Agreement.

(c) (1) In consideration of the Lessee's performance of the Area A1A Construction Work, the Port Authority will pay to the Lessee the following amounts:

(i) the lesser of (X) the cost (as defined in paragraph (e) of this Section) of the Paving Work, or (Y) Nineteen Million Six Hundred Thousand Dollars and No Cents (\$19,600,000.00) (such lesser amount being hereinafter called the "Paving Reimbursement Amount"); and

(ii) the lesser of (X) the cost (as defined in said paragraph (e)) of the Water Main Work and the Demolition Work, or (Y) Six Hundred Fifty Thousand Dollars and No Cents (\$650,000.00) (such lesser amount being hereinafter called the "Additional Reimbursement Amount").

(2) In consideration of the Lessee's performance of the Remediation Work, if the Port Authority shall request the Lessee to perform all or a part of the Remediation Work, the Port Authority will pay to the Lessee the lesser of (i) the cost (as defined in paragraph (e) of this Section) of the Remediation Work, or (ii) an amount equal to the excess of Four Hundred Thousand Dollars and No Cents (\$400,000.00) over the amount expended by the Port Authority on the investigation and remediation of the High TPH Areas (as defined in Section 7 of this Agreement) prior to the performance by the Lessee of its portion of the Remediation Work, including without limitation thereto amounts expended by the Port Authority on its portion of the Remediation Work, *provided*, that the cost of the Remediation Work performed by the Port Authority shall not include any costs incurred prior to the date of this Agreement. Such lesser amount is hereinafter called the "Remediation Reimbursement Amount". The Port Authority will notify the Lessee of the available amount described in clause (ii) of this subparagraph at the time the Port Authority requests the Lessee to perform a portion of the Remediation Work and will notify the Lessee of the Port Authority's good faith estimate of the cost of performing such portion of the Remediation Work; in the event that the aggregate of the Lessee's contractors' bids for performing such portion of the Remediation Work, obtained as required by subparagraph (2) of paragraph (a) of Section 7 of this Agreement, exceed the available amount described in said clause (ii), the Port Authority will adjust the portion of the Remediation Work to be performed by the Lessee so that the aggregate of such contractor bids does not exceed such available amount. The Lessee shall not be required to perform any portion of the Remediation Work which portion, if performed, would result in the cost of such Remediation Work exceeding the available amount described in clause (ii) of this subparagraph; in making

such determination, the rendered bills shall be used to determine the cost of work already performed and contractor's bids shall be used to determine the cost of work not yet performed.

(d) The amounts set forth in paragraph (c) of this Section will be paid to the Lessee as follows: On or about the 10th day of the calendar month following the calendar month in which the Lessee commences the Paving Work, the Water Main Work, the Demolition Work or the Remediation Work, as the case may be, in the premises pursuant to the provisions of this Section and on the 10th day of each calendar month thereafter during the period of performance of such work, the Lessee shall deliver a certificate to the Port Authority signed by a responsible officer of the Lessee familiar with the subject matter which shall certify as follows:

(1) the Paving Work, Water Main Work, Demolition Work or Remediation Work, as the case may be, performed by the Lessee in the preceding calendar month separately stating the cost, as defined in this Section, for which reimbursement is sought, of performing each of the Paving Work, Water Main Work, Demolition Work and Remediation Work, as the case may be, described in the certificate, the amount of the cost of each type of work which is on that date due and payable by the Lessee and the amount of such cost which on that date has actually been paid by the Lessee;

(2) except in the case of the first such certificate delivered to the Port Authority, the cumulative amount of the cost of performing each of the Paving Work, Water Main Work, Demolition Work and Remediation Work, as the case may be, paid by the Lessee from the commencement of the Area A1A Construction Work or the Remediation Work, as the case may be, to the date of the certificate and the cumulative amount of all payments made by the Lessee which are properly includible in the cost of performing each of such types of Work, from the commencement of such work to the date of the certificate;

(3) that there is no outstanding indebtedness known to the person executing such certificate, after due inquiry, then due for labor, wages, materials, supplies or services in connection with any construction and installation work described therein which, if unpaid, might become the basis of a vendor's, mechanic's, laborer's or materialman's statutory or similar lien or alleged lien upon such work, the premises, any part thereof or the Lessee's leasehold interest therein;

(4) that the portion of the Paving Work, Water Main Work, Demolition Work or Remediation Work, as the case may be, performed by the Lessee since the last such certificate (or since the earlier of the commencement of the Area A1A Construction Work or of the Remediation Work, in the case of the first such certificate) and covered by such certificate has been performed in accordance with the terms of this Agreement and the construction application; and

(5) that attached to such certificate are copies of cancelled checks, bills or invoices marked paid by the issuer or other evidence of payment satisfactory to the Port Authority for all amounts certified as paid in such certificate.

Nothing contained in this Agreement shall be deemed or construed as a submission by the Port Authority to the application to it of any vendor's, mechanic's, laborer's or materialman's statutory or similar lien. Within forty-five (45) days after the delivery of each such certificate by the Lessee, the Port Authority shall pay to the Lessee the amount constituting the cost of performing the Paving Work, Water Main Work, Demolition Work or Remediation Work, as the case may be, certified by the Lessee as paid in its certificate relating to the preceding calendar month less ten percent (10%) thereof and also less the amount of any claims made against the Port Authority by subcontractors, materialmen or workmen, if any, in connection with any of the work described in such certificate and not bonded or discharged prior to the date of such payment, *provided*, that the total of such periodic payments made by the Port Authority shall not exceed ninety (90%) of the Paving Reimbursement Amount, Additional Reimbursement Amount or Remediation Reimbursement Amount, as the case may be. Upon final completion of all of the Paving Work, of all the Water Main Work and Demolition Work, or of all the Remediation Work, as the case may be, to be performed by the Lessee as set forth in this Section, the Lessee shall submit to the Port Authority a certificate signed by a responsible officer of the Lessee familiar with the subject matter certifying: (A) that all of the Paving Work, all the Water Main Work and Demolition Work, or all of the Remediation Work, as the case may be, has been completed and was performed in accordance with the approved plans and specifications referred to in paragraph (c) of Section 8 of the Lease and the provisions of this Agreement; (B) the final cost of the Paving Work, the Water Main Work and Demolition Work, or of the Remediation Work, as the case may be, and the total payments made by the Lessee on account of such cost; and (3) that there is no outstanding indebtedness known to the person signing such certificate, after due inquiry, then due on account of the purchase of any equipment or fixtures described in the certificate or for labor, wages, materials, supplies or services in connection with any work described therein which, if unpaid, might become the basis of a vendor's, mechanic's, laborer's or materialmen statutory or similar lien or alleged lien upon such work or upon the premises under the Lease, as amended hereby, or any part thereof, or upon the Lessee's leasehold interest therein, nor are any of the equipment or fixtures described in such certificate secured by any liens, mortgages, security interests or other encumbrances. Such certificate shall also contain a certification by the architect or engineer who sealed the Lessee's plans and specifications pursuant to the provisions of paragraph (c) of Section 8 of the Lease certifying that all of the Paving Work, all of the Water Main Work and Demolition Work, or all of the Remediation Work, as the case may be, has been performed in accordance with the approved plans and specifications. The Lessee shall also supply to the Port Authority such supporting documents and records as the Port Authority shall deem necessary to substantiate the matters set forth in the Lessee's certificate. If all of the work has been completed in accordance with said approved plans and specifications and the provisions of this Agreement, the Lessee's certificate is fully satisfactory to the Port Authority and the Port Authority has examined and approved the Lessee's certificate and such records and other documentation of the Lessee as the Port Authority shall deem necessary to substantiate such cost, the Port Authority shall finally determine the cost of

the Paving Work and the Paving Reimbursement Amount, the cost of the Water Main Work and Demolition Work and the Additional Reimbursement Amount, or the cost of the Remediation Work and the Remediation Reimbursement Amount, as the case may be. No payment made by the Port Authority to the Lessee pursuant to this paragraph (d) shall be deemed final until the cost of the Paving Work, of the Water Main Work and Demolition Work, or of the Remediation Work, as the case may be, has been finally determined by the Port Authority, nor shall any such payment be deemed a final determination by the Port Authority of the cost of the Paving Work, of the Water Main Work and Demolition Work, or of the Remediation Work, as the case may be. The Lessee shall permit the Port Authority by its agents, employees and representatives at all reasonable times prior to a final determination of the cost of the Paving Work, of the Water Main Work and Demolition Work, or of the Remediation Work, as the case may be, to examine and audit the records and other documentation of the Lessee which pertain to and will substantiate such cost. If the cost of the Paving Work, of the Water Main Work and Demolition Work, or of the Remediation Work, as the case may be, as finally determined shall exceed payments previously made of the Paving Reimbursement Amount, the Additional Reimbursement Amount or the Remediation Reimbursement Amount, respectively, whether by reason of the ten percent (10%) deductions made in connection with the prior periodic payments of such amounts or otherwise, the Port Authority will pay the same to the Lessee less the amount of any claims made against the Port Authority by subcontractors, materialmen or workmen, if any, in connection with the construction and installation work described in such certificate and not bonded or discharged prior to the date of such payment; but if the payments previously made of the Paving Reimbursement Amount, the Additional Reimbursement Amount or the Remediation Reimbursement Amount, as the case may be, exceed the cost of the Paving Work, of the Water Main Work and Demolition Work, or of the Remediation Work, respectively, or if any component of such payments exceed the twenty percent (20%) or other limitation set forth in the definition of cost set forth in this Section, the Lessee shall repay such excess to the Port Authority within ten (10) days after demand therefor. No amount paid by the Port Authority to the Lessee pursuant to the provisions of this paragraph shall or shall be deemed to imply that the Area A1A Construction Work or the Remediation Work has been completed in accordance with law or the provisions of this Agreement.

(e) To the extent permitted by sound accounting practice, and subject to the terms and conditions of paragraph (d) of this Section, the sum of the following items of cost incurred by the Lessee in performing the Paving Work, Water Main Work, Demolition Work or Remediation Work shall constitute the cost thereof for the purposes of this Agreement:

(1) The Lessee's payments to contractors for services rendered and equipment employed in such work, including, in the case of the Paving Work, the cost of environmental sampling and testing and including in such cost, without limitation thereto, the cost of such sampling and testing as may be required by subparagraph (3) of paragraph (m) of Section 9 of the Lease, as amended by subparagraph (3) of paragraph (b) of Section 7 of this Agreement;

(2) The Lessee's payments for supplies and materials, including, without limitation thereto, equipment installed in the premises;

(3) The Lessee's payments to persons, firms or corporations other than construction contractors or suppliers of materials, for services rendered or rights granted in connection with such work, not including services of the types mentioned in items (4), (5) and (6) of this paragraph;

(4) The Lessee's payments of premiums for performance bonds and for the insurance the Lessee is required to maintain in effect in accordance with the provisions of paragraphs (i), (j) and (k) of this Section 8 of the Lease during the period of construction only;

(5) The Lessee's payments for engineering services in connection with the Paving Work, Water Main Work, Demolition Work or Remediation Work, as the case may be, and during the period of the construction only;

(6) The Lessee's payments for architectural, planning and design services in connection with the Paving Work, Water Main Work, Demolition Work or Remediation Work, as the case may be; and

(7) The sum of the costs approved under items (4), (5) and (6) of this paragraph shall not exceed 20% of the sum of the costs approved under items (1), (2) and (3) of this paragraph; if in fact there is any such excess, such excess shall not be a part of the cost incurred by the Lessee in the performance of the Paving Work, Water Main Work, Demolition Work or Remediation Work, as the case may be, for the purposes of this paragraph.

No payment or payments on account of administrative or other overhead costs and no payment to employees of the Lessee shall be included in the cost of the Paving Work, Water Main Work, Demolition Work or Remediation Work, whether or not allocated to the cost of the such work by the Lessee's own accounting practices. No payment to a firm or corporation wholly or partially owned by or in common ownership with the Lessee shall be included in the cost of the Paving Work, Water Main Work, Demolition Work or Remediation Work. In no event whatsoever shall the cost of any portion of the Paving Work, Water Main Work, Demolition Work or Remediation Work as finally determined and computed in accordance with the provisions of paragraph (d) of this Section and in accordance with the provisions of this paragraph (e) include any expenses, outlays or charges whatsoever by or for the account of the Lessee for or in connection with any improvements, equipment or fixtures or the performance of any work unless such are actually and completely installed in and/or made to the premises under the Lease, as amended hereby, nor shall cost include the costs of any equipment, fixture or improvements installed in the premises which are secured by liens, mortgages, other encumbrances or conditional bills of sale. Notwithstanding the provisions of subparagraph (1) of paragraph (k) of Section 9 of the Lease, the cost of the Disposal of Matter (each as defined in said subparagraph (1)) excavated as part of

the Paving Work, the Water Main Work or the Remediation Work (if the Port Authority shall request the Lessee to perform the Disposal of Matter resulting from the Remediation Work) may be included in the Lessee's cost of performing such work to be reimbursed pursuant to this Section.

(f) The parties to this Agreement recognize that the contracts to be entered into by the Lessee for the performance of the Area A1A Construction Work may cover construction work which does not constitute Paving Work, Water Main Work, Demolition Work or Remediation Work. The Lessee shall at all times maintain, and each certificate submitted by the Lessee pursuant to this Section shall set forth, a proper breakdown and allocation of costs and payments as between the Paving Work, Water Main Work, Demolition Work, Remediation Work (if the Port Authority shall request the Lessee to perform all or a part of the Remediation Work) and other construction work at the Facility, the cost of which is not eligible for reimbursement under this Agreement, and the Lessee shall assure that each applicable contract provides for such breakdown and allocation or, in the case of work done before June 1, 2004, that the contract identifies the kind and location of work with enough specificity to allocate its cost between such categories of the Area A1A Construction Work. In submitting the statements and certifications required of the Lessee hereunder, the Lessee shall in each case specifically and separately state the amounts expended under each such contract for the portions of the Area A1A Construction Work which respectively constitute Paving Work, Water Main Work, Demolition Work and Remediation Work (if the Port Authority shall request the Lessee to perform all or a part of the Remediation Work) in addition to those portions of the construction work at the Facility, the cost of which is not eligible for reimbursement under this Agreement.

7. (a) (1) The Port Authority, as an undertaking collateral to the letting of Area A1A hereunder, and subject to all of the provisions of the Lease and this Agreement (including but not limited to the Section of the Lease entitled "*Force Majeure*"), through its employees, agents, representatives, contractors and subcontractors, at its cost and expense, shall cause the soil in the vicinity of the four (4) locations designated as Area A, Area C, Area D and Area E (sometimes hereinafter called "High TPH Areas") on the attached drawing marked "Exhibit T" and entitled "Total Petroleum Hydrocarbons Delineation Borings", to be removed, disposed in accordance with all applicable Environmental Requirements, as defined in subparagraph (8) of paragraph (a) of Section 9 of the Lease, including without limitation thereto those relating to the remediation of Hazardous Substances pursuant to a remedial action work plan approved by the New Jersey Department of Environmental Protection ("NJDEP"), and replaced with fill which does not exceed the NJDEP guidances for unrestricted use. Such removal, disposal and replacement is referred to in this Agreement and the Lease, as amended hereby, as the "Remediation Work." The obligation set forth in this paragraph (a) is limited to the High TPH Areas and to the remediation work expressly set forth in this paragraph (a).

(2) At the election of the Port Authority, by notice to the Lessee, the Lessee shall perform the Remediation Work or that portion of the

Remediation Work set forth in the Port Authority's notice, as the case may be, subject to the provisions of this subparagraph (2) and the portion of the Remediation Work so designated by the Port Authority shall be a part of the Area A1A Construction Work. The Lessee shall perform the Remediation Work pursuant to the applicable provisions of the Lease, including without limitation Sections 8 and 20 thereof entitled "*Construction by the Lessee*", excluding paragraphs (a) and (o) of said Section 8, and for the purpose of said provisions, the term "the Lessee's Construction Work" shall be deemed to include the Remediation Work, *provided*, that the Lessee shall file a separate Construction Application for the Remediation Work distinct from those filed in connection with the performance of the rest of the Area A1A Construction Work, such Remediation Work Construction Application shall incorporate plans and specifications supplied by the Port Authority for the portion of the Remediation Work to be performed by the Lessee and may be reviewed separately from such other Construction Applications and shall be subject to separate approval by the Port Authority. The Lessee shall prepare separate cost estimates for the Remediation Work and shall obtain bids from its contractors separately setting forth the cost of performing the Remediation Work as a separate portion of the Area A1A Construction Work. The Lessee shall not perform any Remediation Work covered by the Lessee's Construction Application therefor until receiving specific Port Authority approval for such Construction Application as set forth in the Lease. Remediation Work performed by the Lessee shall be at the Lessee's expense, except as set forth in paragraphs (c), (d) and (e) of Section 6 of this Agreement. The Port Authority shall not be required pursuant to subparagraph (1) of this paragraph (a) to perform any portion of the Remediation Work which it has elected to have the Lessee perform pursuant to this subparagraph (2).

(b) Section 9 of the Lease, entitled "*Environmental Responsibilities*" is hereby amended as follows:

(1) Paragraph (a) of said Section 9 shall be amended as follows:

(i) Subparagraph (4) of said paragraph (a) shall be amended to read as follows:

"(4) With respect to ground water, 'Analyzed Item' shall mean each of, and 'Analyzed Items' shall mean all of, the constituents for which ground water was tested and the results thereof reported (i) in the Area A1A Initial Baseline, with respect to the ground water under Area A1A, and (ii) in the Initial Environmental Survey, with respect to the ground water under all other portions of the premises, and with respect to soil, 'Analyzed Item' shall mean each of, and 'Analyzed Items' shall mean all of, the constituents for which soil was tested

and the results thereof reported (i) in the Area A1A Initial Baseline, with respect to Area A1A, and (ii) in the Initial Environmental Survey, with respect to all other portions of the premises.”

(ii) The phrase, “, and on or after the Area A1A Commencement Date, with respect to Area A1A”, shall be inserted immediately after the word, “Space”, and before the semi-colon appearing in the last line of clause (iii) of subparagraph (5) of said paragraph (a).

(iii) The phrase, “, the Area A1A Construction Work, the Remediation Work (if the Lessee performs any of such work)”, shall be inserted immediately after the term, “Wharf Rehabilitation Work”, and before the word, “and”, appearing in the sixth (6th) line of clause (iii) of subparagraph (7) of said paragraph (a).

(iv) Subparagraph (14) of paragraph (a) of Section 9 shall be amended to read as follows:

“(14) ‘Exhibit I’ shall mean the Initial Environmental Survey, all Additional Sampling Reports and all Remediation Completion Reports, if any, together with (i) the Added Environmental Survey, from and after the Effective Date, and (ii) the Area A1A Initial Baseline, from and after the Area A1A Commencement Date, and (iii) the Area A1A Revised Baseline, from and after the Area A1A Revised Baseline Effective Date.”

(v) Subparagraph (15) of paragraph (a) of Section 9 shall be amended to read as follows:

“(15) ‘Existing Condition’ shall mean:

“(A) for the period from December 1, 2000 to the day immediately preceding the Effective Date, both dates inclusive, the levels of Analyzed Items in the soil and ground water for all portions of the premises as derived by applying the methodology set forth in paragraph (j) of this Section 9 to the test results in the Initial Environmental Survey, as such test results may be superseded and supplemented by the test results in each Additional Sampling Report and in each Remediation Completion Report in accordance with the provisions of paragraph (m) of this Section, and

“(B) (i) from and after the Effective Date with respect to all portions of the premises except for Area A1A shall mean the levels of Analyzed Items in the soil and ground water for all portions of the premises except for Area A1A as derived by applying the methodology set forth in paragraph (j) of this Section 9 to the test results in the Initial Environmental Survey and the Added Environmental Survey, as such test results may be superceded and supplemented by the test results in each Additional Sampling Report and in each Remediation Completion Report in accordance with the provisions of paragraph (m) of this Section 9, and

“(ii) from and after the Area A1A Commencement Date to the day immediately preceding the Area A1A Revised Baseline Effective Date, both dates inclusive, with respect to the portion of the premises constituting Area A1A shall mean the levels of Analyzed Items in the soil and ground water for all portions of Area A1A as derived by applying the methodology set forth in paragraph (j) of this Section to the test results in the Area A1A Initial Baseline, as such test results may be superceded and supplemented by the test results in each Remediation Completion Report in accordance with the provisions of paragraph (m) of this Section, and

“(iii) from and after the Area A1A Revised Baseline Effective Date with respect to the portion of the premises constituting Area A1A shall mean for the ground water the levels of Analyzed Items in the ground water for all portions of Area A1A as derived by applying the methodology set forth in paragraph (j) of this Section 9 to the ground water test results in the Area A1A Initial Baseline Area and shall mean for the soil the levels of Analyzed Items in the soil for all portions of Area A1A as derived by applying the methodology set forth in paragraph (j) of this Section 9 to the soil test results in the Area A1A Revised Baseline, as such test results may be

superceded and supplemented by the test results in each Remediation Completion Report in accordance with the provisions of paragraph (m) of this Section.”

(vi) Subparagraph (25) of paragraph (a) of Section 9 of the Lease shall be deleted and the following shall be inserted in lieu thereof:

“(25) ‘Ground Area C’ shall mean the ground area defined as ‘Area A1A’ in Section 1 of Supplement No. 5 to the Lease.”

(vii) The phrase, “or the Area A1A Construction Work or the Remediation Work”, shall be inserted immediately after the phrase, “Lessee’s Construction Work”, in both instances where such phrase appears in subparagraph (30) of said paragraph (a).

(viii) The following new subparagraphs (34) through (40) shall be inserted immediately after subparagraph (33) of paragraph (a) to read as follows:

“(34) ‘Area A1A’ shall have the meaning set forth in Section 1 of Supplement No. 5 to the Lease.

“(35) ‘Area A1A Commencement Date’ shall have the meaning set forth in Section 1 of Supplement No. 5 to the Lease.

“(36) ‘Area A1A Construction Work’ shall have the meaning set forth in paragraph (b) of Section 6 of Supplement No. 5 to the Lease.

“(37) ‘Area A1A Initial Baseline’ shall mean Addendum No. 2 to Exhibit I to the Lease attached to Supplemental Agreement No. 5 of this Lease.

“(38) ‘Area A1A Revised Baseline’ shall have the meaning set forth in subparagraph (3) of paragraph (m) of this Section, as amended.

“(39) ‘Area A1A Revised Baseline Effective Date’ shall have the meaning set forth in

subparagraph (3) of paragraph (m) of this Section, as amended.

“(40) ‘Remediation Work’ shall have the meaning set forth in paragraph (a) of Section 7 of Supplement No. 5 of the Lease.”

(2) The phrase, “or the performance of the Area A1A Construction Work (as defined in paragraph (b) of Section 6 of Supplement No. 5 to the Lease) or the Remediation Work (as defined in paragraph (a) of Section 7 of said Supplement No. 5, if the Lessee performs any of such work,)”, shall be inserted immediately after the phrase, “(as defined in Section 8C of this Agreement)”, in the eighteenth (18th) and nineteenth (19th) lines of subparagraph (1) of Paragraph (k) of Section 9 of the Lease.

(3) The following new subparagraph (3) shall be deemed to have been inserted immediately after subparagraph (2) of paragraph (m) of said Section 9 to read as follows:

“(3) It is hereby recognized that as a result of the performance of the Area A1A Construction Work and the Remediation Work, a substantial portion of the subsurface soil of the premises will be disturbed, removed and/or replaced thereby causing the test results for the soil in Area A1A set forth in Addendum No. 2 to Exhibit I to be no longer relevant. The Lessee hereby agrees that prior to submitting to the Port Authority the certificate of the Lessee and of the Lessee’s architect or engineer referred to in paragraph (c) of Section 8 of the Lease certifying that all of the Paving Work has been performed in accordance with the approved plans and specifications and the provisions of the Lease, the Lessee shall at its sole cost and expense (except as provided in paragraphs (c), (d) and (e) of Section 6 of Supplement No. 5 to the Lease) as part of the Paving Work (as defined in subparagraph (1) of paragraph (b) of said Section 6) and subject to the terms and provisions of Section 8 of the Lease entitled “*Construction by the Lessee*” and of Section 6 of Supplement No. 5 to the Lease, sample and test the soil of Area A1A for the Analyzed Items for Area A1A or the sixty (60) pollutants plus forty (40) tentatively identified compounds set forth in the latest edition of the New Jersey Department of Environmental Protection Field Sampling and Procedures Manual (the “Manual”) in accordance with the Manual in not less than one location in each acre of Area A1A as specified by the Port Authority. The testing and analysis shall be performed by a laboratory with a current Data Certification in accordance

with NJAC 7:18. The Lessee shall set forth the test results of such sampling in a report, which report shall be in the same form as Exhibit I of the Lease (such report is herein referred to as the "Area A1A Revised Baseline"). All such sampling, testing and the preparation of the Area A1A Revised Baseline shall be performed by an independent consultant and laboratory licensed by the State of New Jersey. The Lessee shall deliver a copy of the Area A1A Revised Baseline to the Port Authority prior to or at the same time as the Lessee delivers to the Port Authority the certificate of the Lessee and of its architect or engineer referred to above, and after such delivery of the Area A1A Revised Baseline by the Lessee to the Port Authority the Area A1A Revised Baseline shall replace the Area A1A Baseline for all purposes under this Lease for determining the Existing Condition of the soil in Area A1A of the premises. The date of receipt by the Port Authority of the A1A Revised Baseline is herein called the "Area A1A Revised Baseline Effective Date."

(4) (i) The phrase, " , or whose presence in, on or under Area A1A occurred after the Area A1A Commencement Date", shall be inserted immediately after the word, "any" and before the period appearing in the eighth (8th) line from the end of subparagraph (i) of paragraph (u) of said Section 9.

(ii) The phrase, "or the obligations set forth in subparagraph (iv) of this paragraph (u), as amended by Supplement No. 5 to the Lease", shall be inserted immediately after the words and figures, "Sections 11 and 16 hereof", and before the word, "and", appearing in the third line of subparagraph (iii) of said paragraph (u).

(iii) The following shall be inserted immediately after subparagraph (iii) of paragraph (u) as subparagraph (iv) of said paragraph (u):

"(iv) Notwithstanding anything to the contrary in this Lease, in the event that after the performance of the Paving Work on any portion of Area A1A any Governmental Authority or any Environmental Requirement shall require, either as a condition of any approval or otherwise, that the Existing Condition on such portion of Area A1A be removed or remediated, the Lessee shall, when such removal and/or remediation is completed or upon earlier written notice from the Port Authority, expeditiously at its sole cost and expense repair and/or replace the pavement that may be damaged or destroyed by such remediation or removal on such

portion of Area A1A, including without limitation performing all required backfilling of such portion of Area A1A in accordance with all Environmental Requirements (including without limitation any remedial action work plan covering such soil removal and/or remediation)."

(5) Addendum No. 2 and Addendum No. 3 attached hereto are hereby made a part hereof, of the Lease and of Exhibit I to the Lease.

(c) The Lessee has requested that it be allowed to perform the Paving Work at its risk (except as expressly provided in paragraphs (c), (d) and (e) of Section 6 of this Agreement), to accommodate the needs of the Lessee's expanding business, even though sampling and testing of the groundwater at Area A1A indicate the presence of Hazardous Substances (as defined in subparagraph (26) of paragraph (a) of Section 9 of the Lease) in the soil which exceed the NJDEP soil clean up guidances for both restricted and unrestricted use and in the groundwater which exceed applicable NJDEP ground water criteria, *provided*, that the Port Authority shall perform, or reimburse the Lessee for performing in the manner set forth in Section 6 of this Agreement, the Remediation Work, as set forth in paragraph (a) of this Section.

(1) The Port Authority has advised the Lessee that it is reluctant to permit the Lessee to perform the Paving Work until (i) all governmental approvals have been obtained with respect to addressing the presence of Hazardous Substances currently in, on or under Area A1A which exceed or are in violation of any Environmental Requirement (including without limitation the soil clean up criteria used by NJDEP and applicable NJDEP groundwater criteria), which approvals include but are not limited to, the approval by the prior tenants of Area A1A and the NJDEP of all relevant remedial action work plans for Hazardous Substances currently in, on and under Area A1A, the reclassification or waiver of classification with respect to the groundwater under Area A1A and the approval by NJDEP of the conditions upon which it will permit Area A1A to be used for container terminal operations (all of the foregoing required approvals referred to in this clause (i) being herein collectively called the "Required Environmental Approvals" and all the terms, conditions, provisions and requirements of all of the Required Environmental Approvals when given are herein referred to as the "Regulatory Environmental Conditions"), and (ii) the Port Authority has determined that it can and will comply with all the Regulatory Environmental Conditions (such determination by the Port Authority being herein referred to as the "Port Authority Environmental Determination"). Nevertheless, the Lessee has advised the Port Authority that it wishes to proceed with the Paving Work prior to all of the Required Environmental Approvals having been obtained and prior to the Port Authority Environmental Determination having been made. Without limiting any other term or condition of this Agreement, if the Lessee proceeds with the Paving Work, except as expressly provided with respect to cost reimbursement in paragraphs (c), (d) and (e) of Section 6 of this Agreement, subject to the provisions of subparagraph (2) of paragraph (b) of Section 9 of the Lease, and unless the Port Authority elects to perform all or part of the Remediation

Work itself, the Lessee shall assume all risks arising out of or in connection with all Hazardous Substances on Area A1A, all Environmental Requirements relating to Area A1A or its use and occupancy and the Paving Work, all Required Environmental Approvals, all Regulatory Environmental Conditions and the Port Authority Environmental Determination, including without limitation, the fact that not all of the Environmental Approvals may be obtained, the fact that the NJDEP may never approve, or may not continue any approval of the extent of the remediation to be performed in, on or under Area A1A or on the conditions that Area A1A may be used for container terminal operations, the fact that the Port Authority may determine that it will not comply or can not comply with all of the Regulatory Environmental Conditions (including without limitation the conditions imposed by NJDEP for use of Area A1A for container terminal operations), the fact that the NJDEP or Environmental Requirements may require remediation of the soil in, on or under Area A1A after all or some of the Paving Work has been performed which may require the removal of all or some of the Paving Work, the removal of all or part of the soil beneath the paved portion of Area A1A and the repaving of the affected portions of Area A1A, and the fact that the Hazardous Substances in, on and under Area A1A may increase the cost to the Lessee to perform the Paving Work.

(2) The Lessee acknowledges that the Port Authority has provided the Lessee results of soil sampling and testing previously performed at Area A1A entitled "Soil Sample Exceedence Plan, Semivolatile Organic Compounds"; "Soil Sample Exceedence Plan, Polychlorinated Biphenols/Pesticides"; "Soil Sample Exceedence Plan, Inorganic Compounds; and "Soil Sample Exceedence Plan, Total Petroleum Hydrocarbon each dated December 2001, a map dated 6/27/02 entitled "Total Petroleum Hydrocarbon Excavation Areas" and an environmental report entitled "Environmental Baseline Environmental Evaluation - Former Naprano Iron and Metal Company and Metro Metals Facility (15 Acre Site) - Port Newark Port Authority Marine Terminal", dated July 2001 (hereinafter collectively called the "Subsurface Environmental Reports") which show Hazardous Substances in, on and under Area A1A that exceed NJDEP's soil clean up guidances for both restricted and unrestricted use and applicable ground water criteria. Without limiting the generality of any other term or provision of the Lease, as amended by this Agreement, including without limitation thereto paragraph (1) of Section 9 thereof and Section 22 thereof, the Lessee shall not rely on the Subsurface Environmental Reports being comprehensive or representative of the complete extent of the presence of Hazardous Substances on, under or about Area A1A. The Lessee hereby grants permission to the Port Authority, or to any third person designated by the Port Authority by notice to the Lessee, to enter upon Area A1A on seven (7) days' prior notice for the purpose of performing soil remediation of any Hazardous Substance which exceeds NJDEP's soil clean up guidances for unrestricted use and for the purpose of performing groundwater remediation of any Hazardous Substance that exceeds any applicable groundwater quality standards, it hereby being understood and agreed that, except as expressly set forth in the Lease or in this Agreement, the Port Authority shall have no obligation whatsoever to the Lessee to

perform or pay for any such remediation and no permission or approval of the Port Authority hereunder, or of the Paving Work, or in connection with either, shall be or be deemed to have imposed any obligation whatsoever on the Port Authority to perform or pay for any soil, groundwater or other remediation in, on or under Area A1A. The Lessee agrees that no performance of any remediation work in, on or under Area A1A shall constitute an eviction or constructive eviction of the Lessee nor be grounds for any abatement of fees or charges payable by the Lessee under the Permit or otherwise nor give rise to or be the basis of any claim or demand by the Lessee against the Port Authority, its Commissioners, officers, employees or agents for damages, consequential or otherwise. Further, the Port Authority shall have no obligation whatsoever to the Lessee arising out of the performance of any remediation work on, in or under Area A1A, including without limitation, any obligation to back fill the excavations, replace the millings installed on Area A1A by the Lessee, repave the affected portions of Area A1A or otherwise restore Area A1A to the condition existing immediately prior to the performance of any such remediation work. Prior to the date set forth in any notice to the Lessee from the Port Authority of the performance of any remediation work in, on or under Area A1A, the Lessee shall make available the areas designated in such notice for the performance of the remediation, including without limitation the removal of all containers and other personal property from said designated areas and the removal of required portions of the Paving Work and all millings installed by the Lessee on such designated areas.

(3) Notwithstanding this Agreement, or the approval of the Paving Work by the Port Authority or any other Port Authority approvals in connection therewith, or the performance of any remediation work by the Port Authority, the Lessee or others, including without limitation any excavation or disposal of soil which contains any Hazardous Substances whether in the performance of the Paving Work or pursuant to an approved remedial action work plan or on a voluntary basis or otherwise, the Port Authority shall have no obligation whatsoever, in law or equity under the Lease, this Agreement, any Construction Application or otherwise, to the Lessee to obtain any Required Environmental Approvals, to comply with any Regulatory Environmental Conditions or Environmental Requirements, or to perform any remediation in, on or under Area A1A or to make the Port Authority Environmental Determination.

(4) The Lessee hereby specifically acknowledges and agrees that neither this Agreement nor any approval of the Paving Work by the Port Authority nor any performance of the Paving Work nor any expenditure of monies thereon shall grant or shall be deemed to have granted any rights whatsoever in the Lessee (i) to be reimbursed by the Port Authority for the Lessee's cost of performing the Paving Work or any portion thereof, except as expressly provided in Section 6 of this Agreement, (ii) to be reimbursed by the Port Authority for the Lessee's cost of removal of any of the Paving Work or repairing of the affected portions of Area A1A, if required as provided for in this Agreement, (iii) to the performance of any Regulatory Environmental Approvals or any other Environmental Requirements by the Port Authority or any third person, or (iv) to

the Port Authority Environmental Determination being made. The Lessee understands that there may be many problems to be resolved before all Required Environmental Approvals are obtained and before the Port Authority Environmental Determination is made, and that all such problems may not be resolved. The Lessee hereby acknowledges and agrees that if it proceeds with the Paving Work covered by this Agreement, it shall do so at its sole risk being fully cognizant of the fact that the entire expenditure of monies by it on the performance of the Paving Work may be of limited or no benefit to the Lessee and without consideration in that the Lessee may not enjoy any or only limited beneficial use of the Paving Work in that remediation of Area A1A may be required after the Paving Work has been performed or NJDEP may not approve or may not continue its approval of the use of Area A1A for container terminal purposes on conditions that are acceptable to the Port Authority, and all or any other Required Environmental Approvals may not be obtained or the Port Authority Environmental Determination may not be made.

8. (a) The Port Authority and the Lessee have heretofore entered into a Space Permit dated as of July 12, 2001, bearing Port Authority Agreement No. MNS-263 and covering Area A1A; a Supplement to Permit, dated as of March 18, 2002, extending said permit; and a construction letter agreement dated August 23, 2002, relating to construction to be performed on Area A1A, said permit and agreement, as the same have heretofore been supplemented and amended, being hereinafter called the "Existing Agreements."

(b) Effective at 11:59 o'clock P.M. on the day preceding the Area A1A Commencement Date, the Existing Agreements and the permission granted the Lessee to occupy Area A1A thereunder shall be revoked with the same force and effect as if the period of the said permission were in and by the provisions of the Existing Agreements originally fixed to expire on said preceding day and the Lessee and the Port Authority each do by these presents release and discharge the other from any and all obligations of every kind whatsoever on the part of the other to be performed under the Existing Agreements with respect to Area A1A for that portion of the period of permission subsequent to said preceding day; it being understood that nothing herein contained shall release, relieve or discharge the Lessee from any liability for fees, charges or other amounts that may be due or become due to the Port Authority for any period or periods prior to said preceding day, or for breach of any other obligation on the Lessee's part to be performed under the Existing Agreements for or during such period or periods or maturing on the revocation of such permission, *provided*, that the construction letter agreement referred to in paragraph (a) of this Section shall remain in effect with respect to any Construction Application and plans and specifications filed by the Lessee prior to the Area A1A Commencement Date and with respect to any Area A1A Construction Work performed prior to the Area A1A Commencement Date.

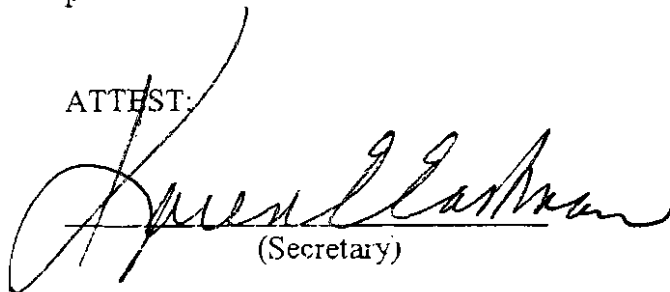
9. Neither the Commissioners of the Port Authority nor any of them, nor any officer, agent or employee thereof, shall be charged personally by the Lessee with any liability, or held liable to the Lessee under any term or provision of this Agreement, or because of its

execution or attempted execution, or because of any breach, or attempted or alleged breach thereof.

10. This Agreement, together with the Lease (to which it is supplementary) constitutes the entire agreement between the Port Authority and the Lessee on the subject matter, and may not be changed, modified, discharged or extended except by instrument in writing duly executed on behalf of both the Port Authority and the Lessee. The Lessee agrees that no representations or warranties shall be binding upon the Port Authority unless expressed in writing in the Lease or in this Agreement.

IN WITNESS WHEREOF, the Port Authority and the Lessee have executed these presents as of the date first above written.

ATTEST:


(Secretary)

THE PORT AUTHORITY OF NEW YORK
AND NEW JERSEY

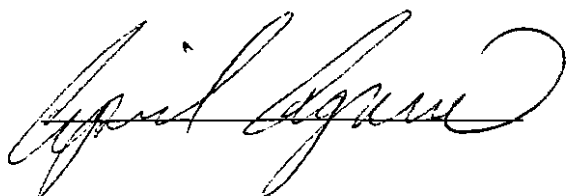
By

(Title)


RICHARD M. LARRABEE
DIRECTOR, PORT COMMERCE DEPT.

(Seal)

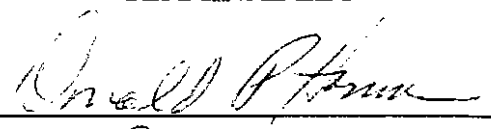
WITNESS:



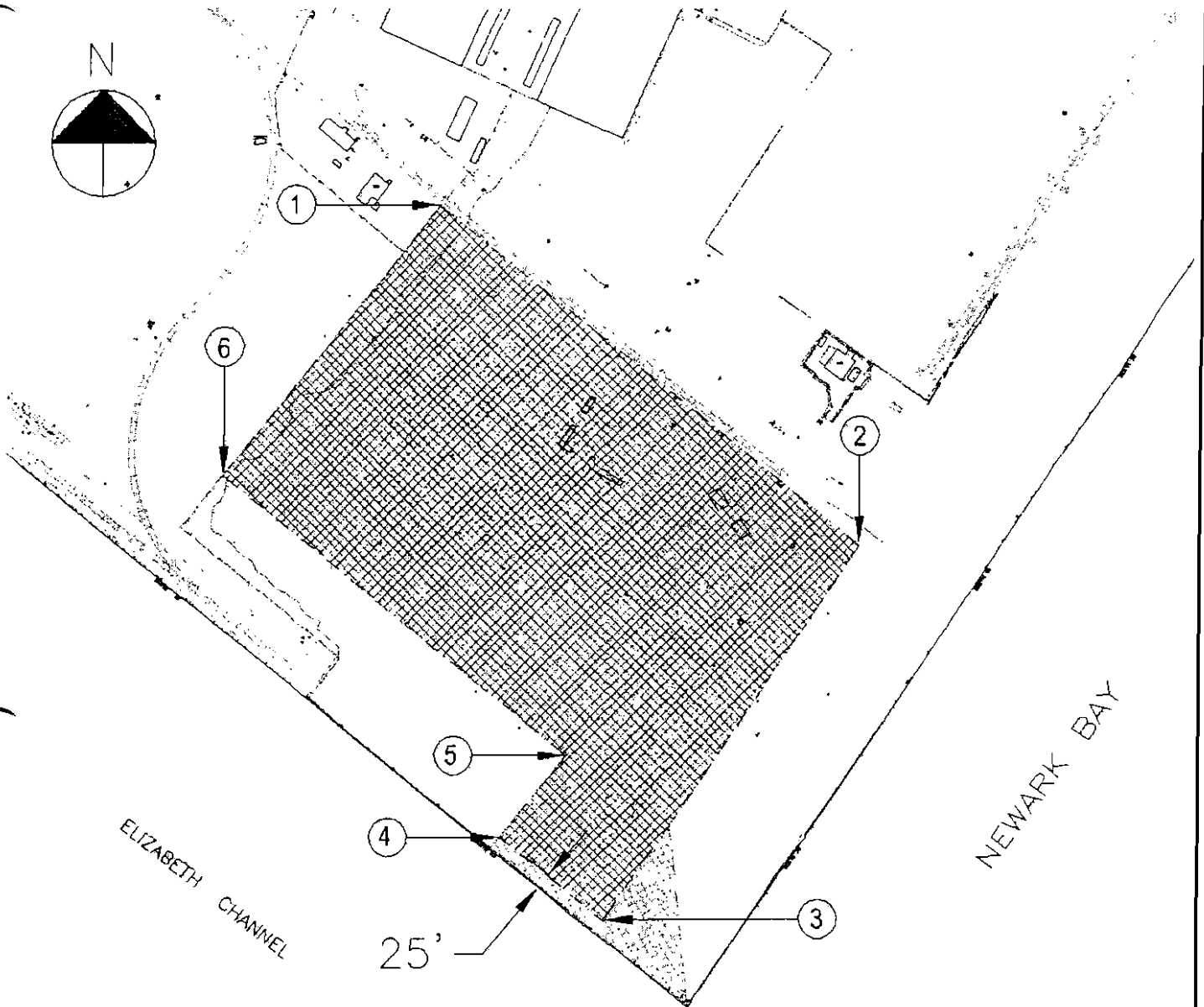
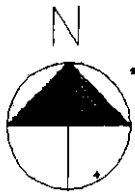
PORT NEWARK CONTAINER
TERMINAL LLC

By

(Title)


PRESIDENT





Total Parcel Area = 653858.40 sqft
(15.01 Acres)

Metes and Bounds:					Coordinate system - NAD 1983 NJ State Plane				
Point No.	Distance	Bearing	Northerly Coordinate	Easterly Coordinate	Point No.	Distance	Bearing	Northerly Coordinate	Easterly Coordinate
1			674252.28	590357.32	5			673273.62	590587.74
	964.04'	S 51°05'31" E				793.98'	N 51°05'31" W		
2			673646.79	591107.49	6			673772.29	589969.90
	807.76'	S 34°06'18" W				616.84'	N 38°54'30" E		
3			672977.96	590654.57					(return to point 1)
	237.70'	N 51°05'31" W							
4			673127.25	590469.61					
	188.08'	N 38°54'30" E							

Initialed:

For the PORT AUTHORITY

For the Lessee

EXHIBIT:

A-1a

THE PORT AUTHORITY OF NY & NJ

PORT NEWARK

Date: MAR 20 2002

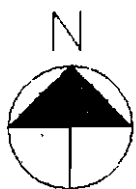
FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006

Downloaded from WWW.FMC.GOV on Tuesday, May 22, 2018

Exhibit S

1. Soil Erosion and Sediment Control Plan covering the Area A1A Construction Work (as defined in the agreement to which this Exhibit S is attached) certified by the governing Soil Conservation District in accordance with the provisions of the New Jersey Soil Erosion and Sediment Control Act, Chapter 251, P.L. 1975, as amended (N.J.S.A. 4:24-39 *et seq*).
2. Authorization to Discharge Stormwater covering the Area A1A Construction Work issued by the New Jersey Department of Environmental Protection under New Jersey Pollutant Discharge Elimination System General Permit No. NJG0088323 (N.J.A.C. 7:14A-11 Appendix B) for Stormwater Discharge Associated with Construction Activity pursuant to the New Jersey Water Pollution Control Act, Chapter 74, P.L. 1977, as amended (N.J.S.A. 58:10A-1 *et seq*).
3. Excavated Material Management Plan covering the Area A1A Construction Work as approved by the Port Authority.

Exhibit T



Areas of Borings

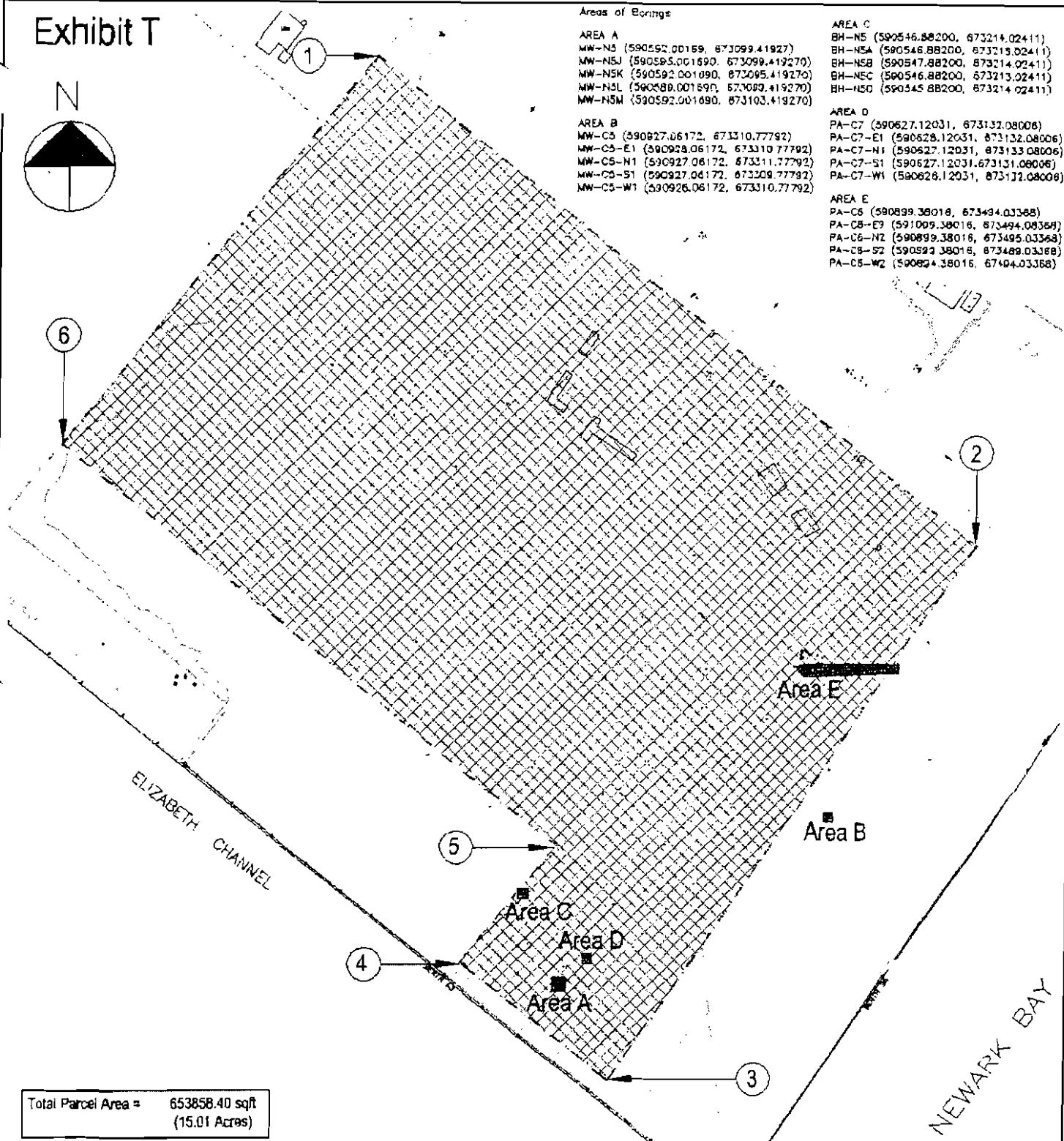
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 MW-N5 (590592.00159, 673099.41927)
 MW-N5J (590595.00159, 673099.41927)
 MW-N5K (590592.00109, 673095.41927)
 MW-N5L (590580.00159, 673089.41927)
 MW-N5M (590592.00169, 673103.41927)

AREA B
 MW-C5 (590627.06172, 673110.77792)
 MW-C5-E1 (590628.06172, 673110.77792)
 MW-C5-N1 (590627.06172, 673111.77792)
 MW-C5-S1 (590627.06172, 673109.77792)
 MW-C5-W1 (590626.06172, 673110.77792)

AREA C
 BH-N5 (590546.88200, 673214.02411)
 BH-N5A (590546.88200, 673215.02411)
 BH-N5B (590547.88200, 673214.02411)
 BH-N5C (590546.88200, 673213.02411)
 BH-N5D (590545.88200, 673214.02411)

AREA D
 PA-C7 (590627.12031, 673132.08006)
 PA-C7-E1 (590628.12031, 673132.08006)
 PA-C7-N1 (590627.12031, 673133.08006)
 PA-C7-S1 (590627.12031, 673131.08006)
 PA-C7-W1 (590628.12031, 673132.08006)

AREA E
 PA-C5 (590899.38016, 673494.03368)
 PA-C5-E7 (591009.38016, 673494.03368)
 PA-C5-N7 (590899.38016, 673495.03368)
 PA-C5-S7 (590899.38016, 673489.03368)
 PA-C5-W7 (590899.38016, 673494.03368)



Total Parcel Area = 653858.40 sqft
 (15.01 Acres)

Metes and Bounds:					Coordinate system - NAD 1983 NJ State Plane			
Point No.	Distance	Bearing	Northerly Coordinate	Easterly Coordinate	Point No.	Distance	Bearing	Northerly Coordinate
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4	237.70'	N 51°05'31" W	673127.25	590469.61				(return to point 1)
5	188.08'	N 38°54'30" E						

Metes & Bounds taken from PA Lease LPN-264, Exhibit A-1a, dtd. 3/30/2002

PORT NEWARK

Total Petroleum Hydrocarbon Delineation Borings

THE PORT OF NEWARK AND ELIZABETH

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006 rev. 12, 2002

Downloaded from WWW.FMC.GOV on Tuesday, May 22, 2018

PNCT LLC TERMINAL GUARANTEE
Schedules D and E
(Effective January 1, 2004)
Annual Containers Handled

<u>Year Commencing</u>	<u># of Containers (Schedule D)</u>	<u>60% (Schedule E)</u>
1/1/2004	350,000	210,000
1/1/2005	355,000	213,000
1/1/2006	360,000	216,000
1/1/2007	365,000	219,000
1/1/2008	396,000	237,600
1/1/2009	401,000	240,600
1/1/2010	406,000	243,600
1/1/2011	411,000	246,600
1/1/2012	416,000	249,600
1/1/2013	421,000	252,600
1/1/2014	426,000	252,600
1/1/2015	431,000	252,600
1/1/2016	436,000	252,600
1/1/2017	441,000	252,600
1/1/2018	446,000	252,600
1/1/2019	451,000	252,600
1/1/2020	456,000	252,600
1/1/2021	461,000	252,600
1/1/2022	466,000	252,600
1/1/2023	471,000	252,600
1/1/2024	476,000	252,600
1/1/2025	476,000	252,600
1/1/2026	476,000	252,600
1/1/2027	476,000	252,600
1/1/2028	476,000	252,600
1/1/2029	476,000	252,600
1/1/2030	476,000	252,600

ADDENDUM A

(b) The Lessee shall be subject to the payment of a guaranteed rental (hereinafter called the "Guaranteed Rental") for the Terminal Throughput Year commencing on January 1, 2004, and ending on December 31, 2004, and in each subsequent Terminal Throughput Year to occur thereafter during the term of the letting under this Agreement as follows: in the event that the number of Qualified Containers loaded onto or discharged from vessels berthing at the premises during any such Terminal Throughput Year shall not exceed the Rent Guarantee Number for that Terminal Throughput Year, the Lessee shall pay to the Port Authority a Guaranteed Rental equal to the product obtained by multiplying

(1) the excess of the Rent Guarantee Number for that Terminal Throughput Year over the greater of (i) the actual number of Qualified Containers loaded onto or discharged from vessels berthing at the premises during that Terminal Throughput Year, or (ii) the Exemption Number (as defined in subparagraph (5) of paragraph (a) of Section 5 hereof); by

(2) the Throughput Rental Rate in effect on the last day of that Terminal Throughput Year pursuant to the provisions of Sections 5 and 6 hereof.

Any Guaranteed Rental owed under this Section shall be paid by the Lessee to the Port Authority within ten (10) days after notification by the Port Authority to the Lessee stating the amount thereof.

(c) Notwithstanding any provision to the contrary contained in this Section, the Rent Guarantee Number of three hundred fifty thousand (350,000), as set forth in Schedule D hereto for the Terminal Throughput Year ending on December 31, 2004, shall not be increased and shall remain at three hundred fifty thousand (350,000) for purposes of the calculation of the Guaranteed Rental in the event that the Forty-five Foot Deepening shall not have been completed by December 31, 2004. The calculation of the Guaranteed Rental shall be made based on the Rent Guarantee Number of three hundred fifty thousand (350,000) until such time as the Forty-five Foot Deepening is completed, and upon the completion thereof the calculation of the next payable Guaranteed Rental shall reflect the Rent Guarantee Number of three hundred fifty thousand (350,000) for any portion of the Terminal Throughput Year preceding the completion of the Forty-five Foot Deepening and shall reflect the Rent Guarantee Number of three hundred fifty-five thousand (355,000) for any portion of the Terminal Throughput Year following the completion thereof, unless the Forty-five Foot Deepening shall be completed on the last day of the Terminal Throughput Year, in which event the Rent Guarantee Number for the entire Terminal Throughput Year next following the Terminal Throughput Year in which the Forty-five Foot Deepening shall be completed shall be three hundred fifty-five thousand (355,000). Thereafter the Rent Guarantee Number shall increase in the succession set forth in Schedule D hereto for the succeeding Terminal Throughput Years without regard to the actual calendar year of the Terminal Throughput Year set forth in said Schedule D. In addition, and notwithstanding any provision to the contrary contained in this Section, the Rent Guarantee

Number of four hundred one thousand (401,000), as set forth in Schedule D hereto for the Terminal Throughput Year ending on December 31, 2009, or such lower Rent Guarantee Number as shall then be in effect pursuant to the provisions set forth above in this paragraph (which applicable Rent Guarantee Number is hereinafter called "the 2009 Rent Guarantee Number"), shall not be increased and shall remain at the 2009 Rent Guarantee Number for purposes of the calculation of the Guaranteed Rental in the event that the Fifty Foot Deepening shall not have been completed by December 31, 2009. The calculation of the Guaranteed Rental shall be made based on the 2009 Rent Guarantee Number until such time as the Fifty Foot Deepening is completed, and upon the completion thereof the calculation of the next payable Guaranteed Rental shall reflect the 2009 Rent Guarantee Number for any portion of the Terminal Throughput Year preceding the completion of the Fifty Foot Deepening and shall reflect the Rent Guarantee Number next succeeding the 2009 Rent Guarantee Number for any portion of the Terminal Throughput Year following the completion thereof, unless the Fifty Foot Deepening shall be completed on the last day of the Terminal Throughput Year, in which event the Rent Guarantee Number for the entire Terminal Throughput Year next following the Terminal Throughput Year in which the Fifty Foot Deepening shall be completed shall be the Rent Guarantee Number next succeeding the 2009 Rent Guarantee Number. Thereafter the Rent Guarantee Number shall increase in the succession set forth in Schedule D hereto for the succeeding Terminal Throughput Years without regard to the actual calendar year of the Terminal Throughput Year set forth in said Schedule D.

(d) Notwithstanding any provision to the contrary contained in this Section, the Rent Guarantee Number of three hundred fifty-five thousand (355,000), as set forth in Schedule D hereto for the Terminal Throughput Year ending on December 31, 2005, shall not be increased and shall remain at three hundred fifty-five thousand (355,000) for purposes of the calculation of the Guaranteed Rental in the event that the Dredging, as defined in Section 8 (a) (3) hereof, shall not have been completed by December 31, 2005, because of the inability of the Lessee to obtain all necessary permits and governmental authorizations to perform the Dredging. The calculation of the Guaranteed Rental shall be made based on the Rent Guarantee Number of three hundred fifty-five thousand (355,000) until such time as the Dredging is completed, and upon the completion thereof the calculation of the next payable Guaranteed Rental shall reflect the Rent Guarantee Number of three hundred fifty-five thousand (355,000) for any portion of the Terminal Throughput Year preceding the completion of the Dredging and shall reflect the Rent Guarantee Number of three hundred sixty thousand (360,000) for any portion of the Terminal Throughput Year following the completion thereof, unless the Dredging shall be completed on the last day of the Terminal Throughput Year, in which event the Rent Guarantee Number for the entire Terminal Throughput Year next following the Terminal Throughput Year in which the Dredging shall be completed shall be three hundred sixty thousand (360,000). Thereafter the Rent Guarantee Number shall increase in the succession set forth in Schedule D hereto for the succeeding Terminal Throughput Years without regard to the actual calendar year of the Terminal Throughput Year set forth in said Schedule D. In addition, and notwithstanding any provision to the contrary contained in this Section, the Rent Guarantee Number of four hundred six thousand (406,000), as set forth in Schedule D hereto for the Terminal Throughput

Year ending on December 31, 2010, or such lower Rent Guarantee Number as shall then be in effect pursuant to the provisions set forth above in this paragraph (which applicable Rent Guarantee Number is hereinafter called "the 2010 Rent Guarantee Number"), shall not be increased and shall remain at the 2010 Rent Guarantee Number for purposes of the calculation of the Guaranteed Rental in the event that the Fifty-two Foot Dredging, as defined in Section 8(a)(5) hereof, shall not have been completed by December 31, 2010, because of the inability of the Lessee to obtain all necessary permits and governmental authorizations to perform Fifty-two Foot Dredging. The calculation of the Guaranteed Rental shall be made based on the 2010 Rent Guarantee Number until such time as the fifty-two Foot Dredging is completed, and upon the completion thereof the calculation of the next payable Guaranteed Rental shall reflect the 2010 Rent Guarantee Number for any portion of the Terminal Throughput Year preceding the completion of the Fifty-two Foot Dredging and shall reflect the Rent Guarantee Number next succeeding the 2010 Rent Guarantee Number for any portion of the Terminal Throughput Year following the completion thereof, unless the Fifty-two Foot Dredging shall be completed on the last day of the Terminal Throughput Year, in which event the Rent Guarantee Number for the entire Terminal Throughput Year next following the Terminal Throughput Year in which the Fifty-two Foot Dredging shall be completed shall be the Rent Guarantee Number next succeeding the 2010 Rent Guarantee Number. Thereafter the Rent Guarantee Number shall increase in the succession set forth in Schedule D hereto for the succeeding Terminal Throughput Years without regard to the actual calendar year of the Terminal Throughput Year set forth in said Schedule D. The postponement of the respective increase in the Rent Guarantee Number as set forth above in this paragraph shall be conditioned upon the Lessee's having made timely, diligent and continuous efforts to obtain any permits and governmental authorizations necessary respectively for the Dredging and the Fifty-two Foot Dredging and, upon obtaining them, having proceeded to the completion of the respective dredging as expeditiously as possible.

ADDENDUM B

(f) Notwithstanding any provision to the contrary contained in this Section, the Terminal Guarantee Number of two hundred ten thousand (210,000), as set forth in Schedule E hereto for the Terminal Throughput Year ending on December 31, 2004, shall not be increased and shall remain at two hundred ten thousand (210,000) for purposes of the termination right set forth in paragraph (d) of this Section in the event that the Forty-five Foot Deepening shall not have been completed by December 31, 2004. The calculation of the Terminal Guarantee Number for each of any three consecutive Terminal Throughput Years shall be made based on the Terminal Guarantee Number of two hundred ten thousand (210,000) until such time as the Forty-five Foot Deepening is completed, and upon the completion thereof the calculation of the Terminal Guarantee Number for the Terminal Throughput Year in which such completion shall occur shall reflect the Terminal Guarantee Number of two hundred ten thousand (210,000) for any portion of the Terminal Throughput Year preceding the completion of the Forty-five Foot Deepening and shall reflect the Terminal Guarantee Number of two hundred thirteen thousand (213,000) for any portion of the Terminal Throughput Year following the completion thereof, unless the Forty-five Foot Deepening shall be completed on the last day of the Terminal Throughput Year, in which event the Terminal Guarantee Number for the entire Terminal Throughput Year next following the Terminal Throughput Year in which the Forty-five Foot Deepening shall be completed shall be two hundred thirteen thousand (213,000). Thereafter the Terminal Guarantee Number shall increase in the succession set forth in Schedule E hereto for the succeeding Terminal Throughput Years without regard to the actual calendar year of the Terminal Throughput Year set forth in said Schedule E. In addition, and notwithstanding any provision to the contrary contained in this Section, the Terminal Guarantee Number of two hundred forty thousand six hundred (240,600), as set forth in Schedule E hereto for the Terminal Throughput Year ending on December 31, 2009, or such lower Terminal Guarantee Number as shall then be in effect pursuant to the provisions set forth above in this paragraph (which applicable Terminal Guarantee Number is hereinafter called "the 2009 Terminal Guarantee Number"), shall not be increased and shall remain at the 2009 Terminal Guarantee Number for purposes of the termination right set forth in paragraph (d) of this Section in the event that the Fifty Foot Deepening shall not have been completed by December 31, 2009. The calculation of the Terminal Guarantee Number for each of any three consecutive Terminal Throughput Years shall be made based on the 2009 Terminal Guarantee Number until such time as the Fifty Foot Deepening is completed, and upon the completion thereof the calculation of the Terminal Guarantee Number for the Terminal Throughput Year in which such completion shall occur shall reflect the 2009 Terminal Guarantee Number for any portion of the Terminal Throughput Year preceding the completion of the Fifty Foot Deepening and shall reflect the Terminal Guarantee Number next succeeding the 2009 Terminal Guarantee Number for any portion of the Terminal Throughput Year following the completion thereof, unless the Fifty Foot Deepening shall be completed on the last day of the Terminal Throughput Year, in which event the Terminal Guarantee Number for the entire Terminal Throughput Year next following the Terminal Throughput Year in which the Fifty Foot Deepening shall be completed shall be the

Terminal Guarantee Number next succeeding the 2009 Terminal Guarantee Number. Thereafter the Terminal Guarantee Number shall increase in the succession set forth in Schedule E hereto for the succeeding Terminal Throughput Years without regard to the actual calendar year of the Terminal Throughput Year set forth in said Schedule E.

(g) Notwithstanding any provision to the contrary contained in this Section, the Terminal Guarantee Number of two hundred thirteen thousand (213,000), as set forth in Schedule E hereto for the Terminal Throughput Year ending on December 31, 2005, shall not be increased and shall remain at two hundred thirteen thousand (213,000) for purposes of the termination right set forth in paragraph (d) of this Section in the event that the Dredging, as defined in Section 8 (a) (3) hereof, shall not have been completed by December 31, 2005, because of the inability of the Lessee to obtain all necessary permits and governmental authorizations to perform the Dredging. The calculation of the Terminal Guarantee Number for each of any three consecutive Terminal Throughput Years shall be made based on the Terminal Guarantee Number of two hundred thirteen thousand (213,000) until such time as the Dredging is completed, and upon the completion thereof the calculation of the Terminal Guarantee Number for the Terminal Throughput Year in which such completion shall occur shall reflect the Terminal Guarantee Number of two hundred thirteen thousand (213,000) for any portion of the Terminal Throughput Year preceding the completion of the Dredging and shall reflect the Terminal Guarantee Number of two hundred sixteen thousand (216,000) for any portion of the Terminal Throughput Year following the completion thereof, unless the Dredging shall be completed on the last day of the Terminal Throughput Year, in which event the Terminal Guarantee Number for the entire Terminal Throughput Year next following the Terminal Throughput Year in which the Dredging shall be completed shall be two hundred sixteen thousand (216,000). Thereafter the Terminal Guarantee Number shall increase in the succession set forth in Schedule E hereto for the succeeding Terminal Throughput Years without regard to the actual calendar year of the Terminal Throughput Year set forth in said Schedule E. In addition, and notwithstanding any provision to the contrary contained in this Section, the Terminal Guarantee Number of two hundred forty-three thousand six hundred (243,600), as set forth in Schedule E hereto for the Terminal Throughput Year ending on December 31, 2010, or such lower Terminal Guarantee Number as shall then be in effect pursuant to the provisions set forth above in this paragraph (which applicable Terminal Guarantee Number is hereinafter called "the 2010 Terminal Guarantee Number"), shall not be increased and shall remain at the 2010 Terminal Guarantee Number for purposes of the termination right set forth in paragraph (d) of this Section in the event that the Fifty-two Foot Dredging, as defined in Section 8 (a) (5) hereof, shall not have been completed by December 31, 2010, because of the inability of the Lessee to obtain all necessary permits and governmental authorizations to perform the Fifty-two Foot Dredging. The calculation of the Terminal Guarantee Number for each of any three consecutive Terminal Throughput Years shall be made based on the 2010 Terminal Guarantee Number until such time as the Fifty-two Foot Dredging is completed, and upon the completion thereof the calculation of the Terminal Guarantee Number for the Terminal Throughput Year in which such completion shall occur shall reflect the 2010 Terminal Guarantee Number for any portion of the

Terminal Throughput Year preceding the completion of the Fifty-two Foot Dredging and shall reflect the Terminal Guarantee Number next succeeding the 2010 Terminal Guarantee Number for any portion of the Terminal Throughput Year following the completion thereof, unless the Fifty-two Foot Dredging shall be completed on the last day of the Terminal Throughput Year, in which event the Terminal Guarantee Number for the entire Terminal Throughput Year next following the Terminal Throughput Year in which the Fifty-two Foot Dredging shall be completed shall be the Terminal Guarantee Number next succeeding the 2010 Terminal Guarantee Number. Thereafter the Terminal Guarantee Number shall increase in the succession set forth in Schedule E hereto for the succeeding Terminal Throughput Years without regard to the actual calendar year of the Terminal Throughput Year set forth in said Schedule E. The postponement of the respective increase in the Terminal Guarantee Number as set forth above in this paragraph shall be conditioned upon the Lessee's having made timely, diligent and continuous efforts to obtain any permits and governmental authorizations necessary respectively for the Dredging and the Fifty-two Foot Dredging and, upon obtaining them, having proceeded to the completion of the respective dredging as expeditiously as possible.

ADDENDUM NO. 2

to

EXHIBIT I

to Lease No. L-PN-264

between

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

and

PORT NEWARK CONTAINER TERMINAL LLC



For the Port Authority

Initialed:



For the Lessee

**SUBSURFACE BASELINE REPORT
FORMER NAPORANO IRON AND METAL COMPANY
AND HUGH NEU SCHNITZER EAST FACILITIES**

ADDENDUM NO. 2

to

EXHIBIT I

to

Lease No. L-PN-264

between

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

and

PORT NEWARK CONTAINER TERMINAL LLC

September 2002

SUBSURFACE BASELINE REPORT FORMER NAPORANO IRON AND METAL COMPANY AND HUGH NEU SCHNITZER EAST FACILITIES

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SECTION 1.0

INTRODUCTION

The purpose of this Subsurface Baseline Environmental Evaluation (SBEE) is to establish surface and subsurface baseline conditions for an approximately 15-acre parcel formerly occupied by the Naporano Iron and Metal Company (Naporano) and the Hugo Neu Schnitzer East (Hugo Neu). The location of the site is shown on Figure 1. The approximately 15-acre area is shown in Figure 2. The investigation on this portion of the property included the installation of 43 soil borings, five of which were completed as monitoring wells. A sixth monitoring well, MW-C5, was installed and sampled as part of the SBEE. However, MW-C5 was excavated during the remediation activities at the site. Soil analytical data for MW-C5 is not provided since the soil was excavated. However, since groundwater is not as location-specific as soil, analytical data for the groundwater samples collected from MW-C5 is included in this report. Locations of the soil borings and monitoring wells are shown on Figures 3 and 4.

The work performed as part of this investigation was conducted in accordance with *Technical Requirements for Site Remediation* (TRSR) (N.J.A.C 7:26E) and the New Jersey Department of Environmental Protection (NJDEP) *Field Sampling Procedures Manual*, May 1992.

SECTION 2.0

FIELD ACTIVITIES

A total of 43 borings were installed in order to characterize the site in regard to potential contaminants and provide information about the geology and hydrogeology. Thirty-three of these borings were installed by Port Authority personnel on both the former Naparano and Hugo Neu sites. Five of these borings were completed as monitoring wells. The remaining 10 borings were installed by Hugo Neu's consultant Excel Environmental Resources, Inc. (Excel) solely on the former Hugo Neu site. The locations of the soil borings and monitoring wells are presented in Figures 3 and 4. In general, the soil borings installed by Port Authority personnel were advanced until groundwater was observed in order to evaluate the potential for the presence and migration of hazardous substances or to delineate contamination seen in earlier investigative rounds. Soil borings installed by Excel were drilled and sampled at pre-determined depths. Additional information regarding sampling procedures is described below.

2.1 SOIL SAMPLING PROGRAM

The soil sampling program investigation followed the requirements specified in N.J.A.C. 7:26E-3.6. All borings performed by Port Authority personnel were installed utilizing either a bucket auger or a 4 5/8-inch inside diameter hollow-stem auger. In areas where subsurface features (utilities) were a concern or proposed sampling depths were limited, a bucket auger was used to penetrate surface features or collect the samples. After subsurface features were penetrated, continuous split-spoon soil samples were collected at 2-foot intervals using a carbon steel split-spoon. All soils were characterized by the on-site geologist (from the hand-auger samples and split-spoon cores) and screened using an HNu photoionization detector. Additionally, HNu readings were recorded in the breathing zone of the on-site workers, and headspace readings were recorded from soil samples collected from each discrete sampling interval. All information was recorded on boring log forms or in bound field logbooks.

Table 1 summarizes the soil sampling program, including sample ID, sampler, site, number of samples, depth, date, and analysis.

Ten of the borings, BH-N1, BH-N1-N1, BH-N1-S1, BH-N1-E1, BH-N1-W1, BH-N5A, BH-N5B, BH-N5C, BH-N5D, and MW-N2 were installed on the former Naporano Facility portion of the site. MW-N2 was completed as a monitoring well. All ten borings were installed on the Naporano facility by Port Authority personnel. A total of 24 soil samples were collected from the six borings. Two samples were collected from both BH-N1 and MW-N2 at depths 0.5 to 1.5 feet (ft) below ground surface (bgs) and between 4.0 and 5.0 ft bgs. Four samples were collected from BH-N1-N1, BH-N1-S1, BH-N1-E1, BH-N1-W1 from depths between 2.0 and 4.0 ft bgs. Samples from BH-N5A, BH-N5B, BH-N5C, and BH-N5D were collected from 0.5 to 2.5 ft. bgs.

The remaining 33 borings were installed on the former Hugo Neu portion of the facility. Port Authority personnel installed 23 of the borings on the Hugo Neu portion of the site and collected samples at various depths. The remaining 10 borings were installed by Excel. Excel collected a total of 28 soil samples. One to four samples were collected per boring by Excel. A detailed breakdown of the sampling program is presented in the sections below.

Due to logistical reasons, the soil and groundwater investigation at each of the former facilities were performed separately. Since the sampling approach for each facility was based on site-specific conditions, unique investigative methods (i.e., sampling depth and parameters) were utilized at each facility. The sampling methodology employed at each facility is presented in the sections below.

Summary of Investigation at Former Naporano Facility Portion of the Site

At the former Naporano Facility, 24 discrete soil samples were collected from ten soil borings for contract laboratory analysis in this portion of the site. Soil samples were collected from each boring at depths ranging from 0.5 to 5.0 ft bgs. HNu readings of the headspace from each sampling interval ranged from 0.0 to 1.5 parts per million (ppm). Field screening results along with the boring logs are provided as Appendix A. BH-N1 and MW-N2 were analyzed for total petroleum hydrocarbons (TPHC) and the complete list of priority pollutants with a forward library search (PP+40), including xylenes. A PP+40 scan is comprised of priority pollutant volatile organic compounds with a forward library search (VO+15) plus xylenes, priority pollutant base/neutral and acid extractable organics with a forward library search (BNA+25), polychlorinated biphenyls (PCBs), pesticides, and priority pollutant metals. Soil samples for Volatile Organic Compound (VOC) analysis were collected using methanol extraction methodology. Soil borings BH-N1-N1, BH-N1-S1, BH-N1-E1, BH-N1-W1, BH-N5A, BH-N5B, BH-N5C, and BH-N5D were analyzed for TPHC only. Trip blanks were submitted for laboratory analyses during the soil sampling task of this investigation. Field blanks and duplicate samples were not collected during the soil sampling phase of the investigation. All Quality Assurance/Quality Control (QA/QC) procedures are detailed in Section 2.3 of this report.

Former Hugo Neu Facility

Within the former Hugo Neu portion of the facility, Port Authority personnel installed 23 soil borings. Hollow stem auger drilling equipment was used to install seven soil borings in this portion of site. Continuous split spoon sampling was collected at intervals of 0.0 to 0.5 ft bgs and 1.5 to 2.0 ft bgs. Bucket augers were used to collect soil samples at the other four locations. Each sample was characterized by the on-site supervisor and screened using an HNu photoionization detector. All field screening information was recorded on boring log forms (see Appendix A).

For each soil boring there was anywhere from one to three samples taken from depths ranging from 0.5 ft bgs to 9.5 ft bgs (See Table 1). HNu readings of the headspace from each sampling interval ranged from 0.0 to 2.3 ppm. Field screening results along with the boring logs are provided as

Appendix A. Samples collected from BH-N6 and BH-N7 were analyzed for Polycyclic Aromatic Hydrocarbons (PAHs), PCBs, Aldrin, Heptachlor, Dieldrin, Lead and TPHC analyses. Samples collected from MW-C1, MW-C2, MW-C3, and MW-C4 were analyzed for TPHC, Phenols, BNA+25, cyanide, PP+40, and PCBs. The remaining samples were only analyzed for TPHC.

As noted previously, in addition to the above-noted sampling, 10 additional soil borings were installed at the Hugo Neu site by Excel. These soil borings were advanced using Geoprobe® drilling equipment. The boring locations are shown on Figure 3. A total of 25 discrete soil samples were collected for contract laboratory analysis. Two to four samples were collected from each soil boring location at varying depths ranging from 0.0 to 0.5 foot bgs to 7.0 –7.5 ft bgs. Each sampling sleeve was characterized by the on-site supervisor and screened using an HNu photoionization detector. All field screening information was recorded on boring log forms (see Appendix A). All soil samples were analyzed for VO+15, BNA+25, PCBs, and priority pollutant metals.

Soil samples were transferred immediately to laboratory-prepared sample containers, labeled, packed, and shipped for analysis in accordance with N.J.A.C. 7:26E 2.1. Soil samples were processed and labeled consistent with Section 2.3.3 of this document. Sample chain-of-custody forms (COCs) were prepared for all samples collected as part of this investigation. Sample documentation and COCs were prepared consistent with procedures detailed in Section 2.3.3. Each piece of sampling equipment was decontaminated prior to use at each new sample location and prior to sampling the respective soil strata. All sampling equipment was constructed of stainless steel. For additional information on equipment decontamination procedures, see Section 2.3.2.

Soil samples for volatile analysis were collected using methanol extraction methodology. Field blanks, trip blanks and duplicate samples were submitted for laboratory analyses during the soil sampling task of this investigation. Quality Assurance/Quality Control (QA/QC) procedures are detailed in Section 2.3 of this report.

Upon completion of each boring location, all soils and investigation-derived waste generated were handled consistent with the site-specific Waste Management Plan detailed in the site-specific investigation work plan.

2.2 GROUNDWATER SAMPLING PROGRAM

The groundwater investigation was conducted as per N.J.A.C. 7:26E-3.7. The program included the installation of six overburden on-site monitoring wells. The wells were installed in select boreholes created during the soil boring program. One of the wells (MW-N2) was installed on the former Naporano facility. Four wells (MW-C1, MW-C2, MW-C3, MW-C4) were installed on the former Hugo Neu facility. MW-C5 (its correlated boring was excavated during remedial activities) was also installed on the former Hugo Neu facility. Approximate locations of these wells are shown on Figure 3. Craig Drilling, Inc. (a New Jersey-licensed well driller) installed the monitoring wells. The well driller obtained the required NJDEP well permits. All the wells were installed under the supervision of Port Authority personnel. The monitoring well construction logs

are included in Appendix A.

2.2.1 Monitoring Well Installation

Well construction materials consisted of 2-inch-diameter (Former Naporano Facility) and 4-inch-diameter (Former Hugo Neu Facility), schedule 40 PVC, well screens and riser pipe. The monitoring wells were constructed with 0.020-inch (20 slot) well screens; location-specific geologic conditions dictated well screen length. The well screens ranged from 3.5 to 8 ft in length. Groundwater was encountered during the drilling activities at 3.5 to 7 ft bgs. The annular space between the well screen and the formation was filled with filter pack to an elevation approximately 2 ft above the top of the screen. The remaining filter pack consisted of approximately 1 foot of finer sand on top of the filter pack. This finer filter pack was designed to act as a sand choke between the formation material and the well materials, and to limit the potential for grout to enter the well from above.

A bentonite seal was emplaced above the filter pack to prevent infiltration to the cement grout into the filter pack and well screen. The seal thickness was dependent on the stratigraphy at each location and ranged from 0.5 to 1.0 foot.

A cement-bentonite grout mixture was placed above the seal and extended to ground surface. All wells were completed with flush-mount construction casings. Cement pads were constructed around each well to provide drainage away from the wells. Protective PVC caps were placed on the PVC riser pipe. Locks were placed on the outside of the protective casings. Metal tags with the monitoring well I.D. number and the NJDEP well permit number were affixed to the manhole covers. Each well was given a locking vacuum cap. A concrete pad was constructed and a flush-mounted manhole cover was grouted in place to secure these locations.

2.2.2 Well Development

Each monitoring well was developed in accordance with the TRSR. Monitoring well development was performed in order to meet the following objectives:

- Remove materials that may have accumulated in the openings of the well screen during installation, and key the well screen and filter pack into the formation being monitored.
- Remove fine materials from the sides of the borehole that resulted from drilling procedures.
- Stabilize the fine materials remaining in the vicinity of the well to retard their movement into the well, increasing well yield.

- Provide an estimate of the well yield.

Monitoring well development was accomplished by overpumping the well using an appropriately sized pump. The pump was field-decontaminated, and new dedicated polyethylene tubing was used for each individual discharge line. To ensure that fine materials were removed during development, the pump intake was raised and lowered across the entire length of the well screen. Additionally, the pump was turned off and on and pumped at different rates during development to cause a surge effect to remove additional fine materials.

During development, field measurements of temperature, pH, specific conductivity, turbidity, and (at some locations) salinity were obtained at the beginning of development, during development and upon completion of development. Observations related to groundwater appearance were recorded.

The development procedures for the monitoring wells continued until the following goals were met or exceeded:

- Discharge became clear.
- Flow rate stabilized.
- At least five volumes of water were removed and the well pumped for a minimum of four hours.
- Turbidity readings were less than 50 NTUs as determined by a nephelometer.

2.2.3 Water Sampling Procedure Summary

Groundwater sampling occurred at the former Naporano Metals Facility on 21 September 1999 and at the former Hugo Neu Facility on 12 and 13 July 1999; all sampling was at least two weeks after development of the last well installed on site. During the groundwater sampling program at the former Hugo Neu site, monitoring well MW-C1 could not be located and therefore was not sampled. During the groundwater sampling program, all monitoring wells were purged and sampled according to low-flow protocol, using a field-decontaminated pump equipped with new, dedicated polyethylene and Teflon-lined discharge tubing. During purging, wells were pumped at a low rate (lower than the recharge rate) so that the drawdown was kept to the lowest possible amount. Water level measurements were taken to ensure that the water column was not purged to dryness.

Monitoring wells were purged until water quality parameters including temperature, pH, and specific conductivity stabilized (less a 10% variation) and turbidity levels were less than 50 NTUs. Purge rates for wells did not exceed the purge rates at which the monitoring wells were

developed. During well purging, groundwater was monitored for the presence of VOCs. Additional groundwater quality parameters including Eh (millivolts), salinity, and dissolved oxygen were obtained to provide additional water quality data. The groundwater sampling procedure employed during the sampling event is provided below.

1. Measure static water level in monitoring well using an electronic water level device to minimize disturbance to the water column.
2. Check for free product or sheen floating on water surface in the well.
3. Position low-flow pump in the water column with the intake placed at a point between the middle and top of the screened interval.
4. Purge the well using a low flow rate (<0.5 l/min) until indicator parameters (i.e., pH, conductivity, oxygen, etc.) have stabilized (Note: Goal during purging is to limit drawdown to <0.1 m).
5. Collect groundwater samples using same flow rates as established during purging.
6. Fill sample bottles directly from the pump discharge avoiding excessive agitation of sample. Fill Volatile Organic Analysis (VOA) sample vials first, then remaining sample bottles.
7. Decontaminate pumps used for groundwater sampling prior to use according to the procedures described herein. One sample was collected from each monitoring well. All samples were separate grab samples.

Each water sample at the Former Naporano Facility was analyzed for TPHC, PP+40, VOCs + 15, total dissolved solids and total chlorides. Each water sample at the Former Hugo Neu Facility was analyzed for TPHC, PP+40, total suspended solids and total chlorides. Temperature, pH, and specific conductivity were measured in the field at both facilities. Groundwater COCs and labeling procedures are detailed in Section 2.3.3.

2.3 QUALITY ASSURANCE AND QUALITY CONTROL

In order to generate analytical data of known and defensible standards, quality assurance (QA) and quality control (QC) protocols for sampling and laboratory analysis were complied with in accordance with the requirements specified in N.J.A.C. 7:26E-2.1. This was conducted to ensure that samples obtained in the field were representative of the particular environment from which they were collected and were of satisfactory quality to meet the project objectives.

2.3.1 QA/QC Samples

2.3.1.1 Field Blanks

A field blank composite sample was taken during the groundwater sampling portion of the investigation. A field blank was conducted using two identical sets of cleaned sample containers. One set of containers was empty and served as the sample containers to be analyzed. The second

set of containers was filled with laboratory-demonstrated analyte-free water. At the field location, the analyte-free water was poured over the clean sample equipment (pump) and placed in the empty sample containers for analysis. The field blank was handled, transported, and analyzed in the same manner as samples acquired that day. The field blank was performed at the rate of one per sampling day per type of sampling equipment, and packaged with its associated matrix. The field blank for groundwater was analyzed for all of the same parameters as the samples collected that day.

2.3.1.2 Trip Blanks

Trip blanks are required only for aqueous sampling events for volatile organics and for soil samples collected with the methanol preservation method. Sample bottles for aqueous trip blanks were filled at the laboratory with laboratory-demonstrated analyte-free water. Sample bottles for trip blanks associated with the volatile soil samples collected using the methanol preservation method were filled and weighed at the laboratory with pesticide-grade methanol. The trip blanks traveled with the sample bottles and were not opened in the field. They were handled, transported, and analyzed along with the other samples. For aqueous samples, one trip blank was provided per shipment or two-day sampling event. For soil samples collected using the methanol preservation method, one trip blank accompanied each sample shipment.

2.3.2 EQUIPMENT DECONTAMINATION

2.3.2.1 Sampling Equipment Decontamination

All soil and groundwater sampling equipment, except heavy machinery and submersible pumps, were decontaminated using these procedures.

Soil sampling equipment was decontaminated according to the following procedure:

1. Non-phosphate detergent plus tap water wash.
2. Tap water rinse.
3. Distilled/deionized water rinse.

Groundwater sampling equipment was decontaminated and packaged in the laboratory, and dedicated for exclusive use at one sample location only. The laboratory utilized the following decontamination procedure:

1. Non-phosphate detergent plus tap water wash.
2. Tap water rinse.
3. Distilled/deionized water rinse.
4. 10% nitric acid solution rinse.
5. Distilled/deionized water rinse.
6. Methanol (pesticide-grade) rinse.*
7. Total air dry.

8. Distilled/deionized water rinse.

* Methanol was used in place of acetone since acetone was a target analyte.

All decontaminated sampling equipment was stored and handled as appropriate to prevent contamination. Information concerning the decontamination methodology, date, time, and personnel was recorded in the field logbook.

2.3.2.2 Heavy Machinery Decontamination

Prior to use on site, heavy equipment was steam cleaned or manually washed. Parts that were prone to contact with contaminated materials required more frequent cleaning to prevent cross-contamination of environmental samples. For example, augers and split-spoon sampling devices were steam cleaned between sampling locations.

2.3.2.3 Pump Decontamination

The pump used for evacuation of water from monitoring wells prior to sample collection was decontaminated to eliminate the possibility of contamination introduced by pump insertion.

The pump was cleaned and flushed between use at each monitoring well. The outside of the pump was manually washed using non-phosphate detergent and water, followed by a potable (tap) water rinse. The pump was then flushed with 20 gallons of potable water pumped through the housing and hose. After completion of the flushing, the exterior housing was rinsed with distilled and deionized water. Rinsate from the pump decontamination was collected in drums for disposal. After each use, the hose was cut up into manageable-sized pieces and disposed of with other investigation-derived wastes.

2.3.2.4 Monitor Well Casing and Screen Decontamination

Before installation, well casings and screens were manually scrubbed in the field to remove foreign material. Casings and screens were also thoroughly steam cleaned to remove all traces of oil and grease which may have been present, especially at threaded joints. Casings were carefully handled and stored to prevent cross-contamination prior to installation.

2.3.3 SAMPLE DOCUMENTATION

During sampling, all activities were recorded in a logbook to provide an accurate record of the sampling event and the procedures followed. Entries made by sampling personnel in the logbook included:

- Date/Time/Weather
- Sampler/Geologist/Soil Scientists' Names

- Sample Point Identification (including location, matrix, and sample depth)
- Sketch Showing the Sampling Point Location (including reference distances)
- Soil Profile
- Sample Size
- Sampling Equipment Used
- Field Measures (where appropriate)
- General Comments (e.g., odor, staining, etc.)

The field crew also labeled each sample container with the appropriate information necessary to identify the sample as listed below:

- Unique Sample Identification Number
- Date
- Time of Sampling
- Name
- Preservation
- Analyses
- Sampler's Initials

This information was then supplemented and cross-referenced on a COC form, providing documentation of the handling of each sample from collection to arrival at the laboratory.

The COC was completed by the field crew and signed by the sampler and all personnel handling the samples before the samples were relinquished to the laboratory. The COC contained the following information:

- Project Name
- Date
- Sampler's Initials
- Sample Identification Number
- Name/Description of Sample (Analytical Parameters)
- Preservation
- Number of Containers
- Holding Conditions and Locations
- Signature of all Handlers and Date and Time of Transfers
- Organization or Affiliation of all Handlers and Reason for Transfer

All samples were preserved at the time of collection and packaged in coolers of sufficient size to hold all containers, ice, and packing material to prevent breakage. Coolers were of suitable type and integrity to transport the samples.

At the laboratory, receipt of samples was recorded on the COC form by laboratory personnel. The original or a copy of the form was returned to the shipper. The COC record was checked by laboratory personnel against the information regarding the analysis requested. If any discrepancies

were discovered, they were resolved with the person requesting the analysis and recorded to provide a permanent record of the event. A record of the information detailing the handling of a particular sample through each stage of analysis was provided by completing a laboratory chronicle form. This form typically provides the following information:

- Job Reference
- Sample Matrix
- Sample Number
- Date Sampled
- Date and Time Received by Laboratory
- Holding Conditions
- Analytical Parameter
- Extraction Date/Time and Extractor's Initials
- Analysis Date/Time and Analyst's Initials
- QA Batch Number, Date Reviewed, and Reviewer's Initials

2.3.4 LABORATORY ANALYTICAL QUALITY ASSURANCE PROCEDURES

Analyses of samples were performed in accordance with NJDEP and U.S. Environmental Protection Agency (USEPA) methodologies.

The contract laboratory provided sample containers for the requested analyses appropriate for analysis of each matrix. The sample containers were of sufficient size to permit replicate analyses to be run from the sample matrix. All unused portions of samples will be archived by the laboratory until written notification from the Port Authority regarding their disposition is received. The contract laboratory will also retain samples and sample extracts in a sample archive for future analyses if requested by Port Authority representatives.

Calibration and periodic inspection of laboratory instruments was in accordance with USEPA and/or the manufacturer's specifications. Reference standards and QC samples (spikes, blanks, and duplicates) were used as necessary to determine the accuracy and precision of procedures, instruments, and operators. If QC sample analysis results indicated QC values outside the control limit range, sample analysis was suspended until the instrument was recalibrated. In general, the following quality control requirements applied to all samples:

- Analysis of an appropriate blank with every set.
- Analysis of at least one standard at midrange concentration (preferably an additional standard near the detection level).
- Annual analysis of external reference samples.
- Annual analysis of split or double blind each method and parameter.
- Laboratories must keep records of the following samples:
 - Date, title, analytical method name, and reference
 - Time of analysis
 - Details of methods not specified in referenced procedures, sample numbers

- All raw data (measurements)
- Calculations
- Results
- Equipment used, and instrumental parameters
- Analyst signature or initials.

QC data was reported with the analytical results. The laboratory provided as a final report reduced-data deliverables as per N.J.A.C 7:26E, Appendix A, Sections III and IV.

2.4 WASTE MANAGEMENT

Types of waste material generated during the site investigation included soil drilling cuttings, monitoring well development groundwater, decontamination rinsates, expendable materials, and personal protective equipment (e.g., gloves, towels, etc.).

Soil cuttings from borings and holes converted to monitoring wells were inspected for contamination by field observation (visual and odor) and instruments (HNU meter). When the material was not contaminated based on field observations, the facility environmental coordinator located an area at the work site to reuse the material as backfill. The material may have been used on site in areas outside the work area, providing the area had similar subsurface characteristics or results of the soil analysis are below the residential cleanup criteria. This determination was the responsibility of the facility environmental coordinator. Material that could not be reused on site was properly disposed of off site utilizing the Port Facility Call-in Disposal Contractor.

Prior to pumping water from a monitoring well, a sample was obtained using a clear-bottom Teflon bailer. The water sample was inspected for contamination by observation (visual and odor), HNU measurements, and field tests (pH). If the water was not contaminated based on the field inspection, the water was reapplied to the ground surface in a manner not to allow water to run off site or over stained areas.

SECTION 3.0

SURVEYING

Table B-1 of Appendix B provides the final latitude, longitude and elevation to the nearest 0.01 foot of all borings and wells installed by Port Authority personnel. The data is presented in North American Datum (NAD) 83 format. The elevation for all monitoring wells is measured from the top of the well casing. The elevation for all soil borings is measured from ground surface. Survey data was not collected for borings installed by Excel. The locations presented in Table B-2 of Appendix B and Figure 3 were scaled off from the figure provided by Excel in their March 1999 Report (Figure 3 - Proposed Soil Boring Locations, *Preliminary Assessment Report and Site Investigation Work Scope Technical Report and Appendices*, Excel Environmental Resources, Inc., March 1999).

SECTION 4.0

RESULTS

4.1 SOIL SAMPLING RESULTS

The analytical results of the soil samples and associated trip blanks collected by Port Authority and Excel. personnel at the Former Naporano and Hugo Neu Facilities are contained in Tables 2 through 12.

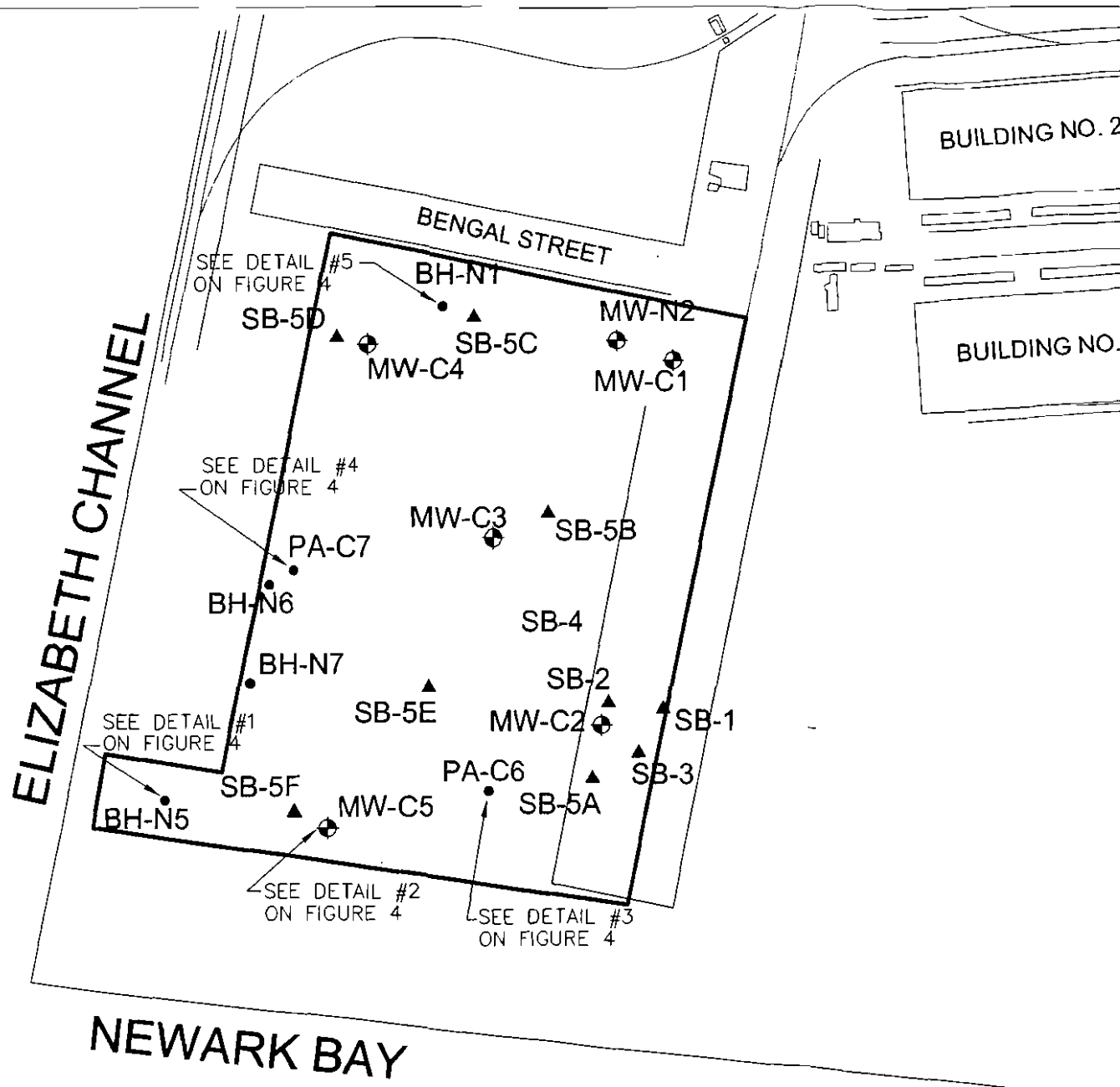
- Table 2 summarizes results of VOC analyses performed on the soil samples collected by the Port Authority.
- Table 3 summarizes results of SVOC analyses performed on the soil samples collected by the Port Authority.
- Table 4 summarizes results of PCBs analyses performed on the soil samples collected by the Port Authority.
- Table 5 summarizes results of pesticide analyses performed on the soil samples collected by the Port Authority.
- Table 6 summarizes results of inorganic analyses performed on the soil samples collected by the Port Authority.
- Table 7 summarizes results of TPHC analyses performed on the soil samples collected by the Port Authority.
- Table 8 summarizes results of VOC analyses performed on the soil samples collected by Excel.
- Table 9 summarizes results of SVOC analyses performed on the soil samples collected by Excel.
- Table 10 summarizes results of PCBs analyses performed on the soil samples collected by Excel.
- Table 11 summarizes results of inorganic analyses performed on the soil samples collected by Excel.
- Table 12 summarizes results of THPC analyses performed on the soil samples collected by Excel.

4.2 GROUNDWATER SAMPLING RESULTS

The analytical results of the groundwater samples collected by the Port Authority personnel from the monitoring wells located at the former Naporano and Hugo Neu Facilities are contained in Tables 13-17.

- Table 13 summarizes the VOC analyses performed on the groundwater samples.
- Table 14 summarizes the results of the SVOC analyses performed on groundwater samples.
- Table 15 summarizes the PCB and pesticide analyses performed on the groundwater samples.
- Table 16 summarizes the inorganic analyses performed on the groundwater samples.
- Table 17 summarizes the results of the TPHC analyses performed on the groundwater samples.

FIGURES



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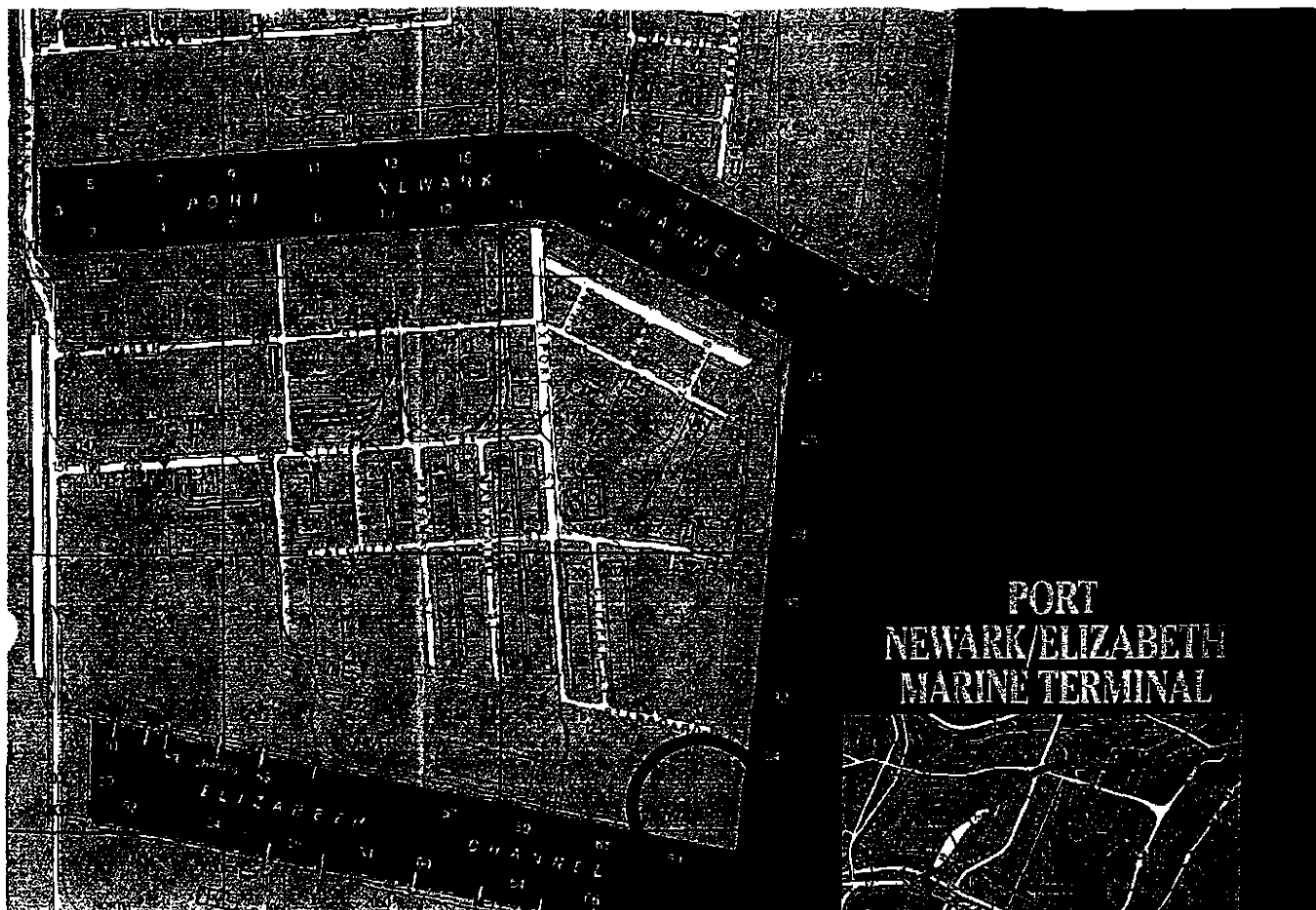
Figure 3

**SOIL BORING & MONITORING
WELL LOCATION PLAN**

LEGEND:

- SOIL BORING
- ▲ SOIL BORING by EXCEL
- ⊗ GROUND WATER MONITORING WELL

SCALE: 1" = 150'

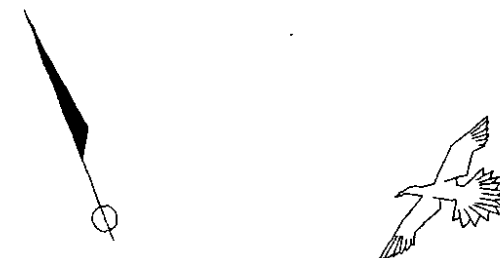


Scale: 1"=1000'

SITE LOCATION



Scale: 1"=10,000'



**THE PORT AUTHORITY
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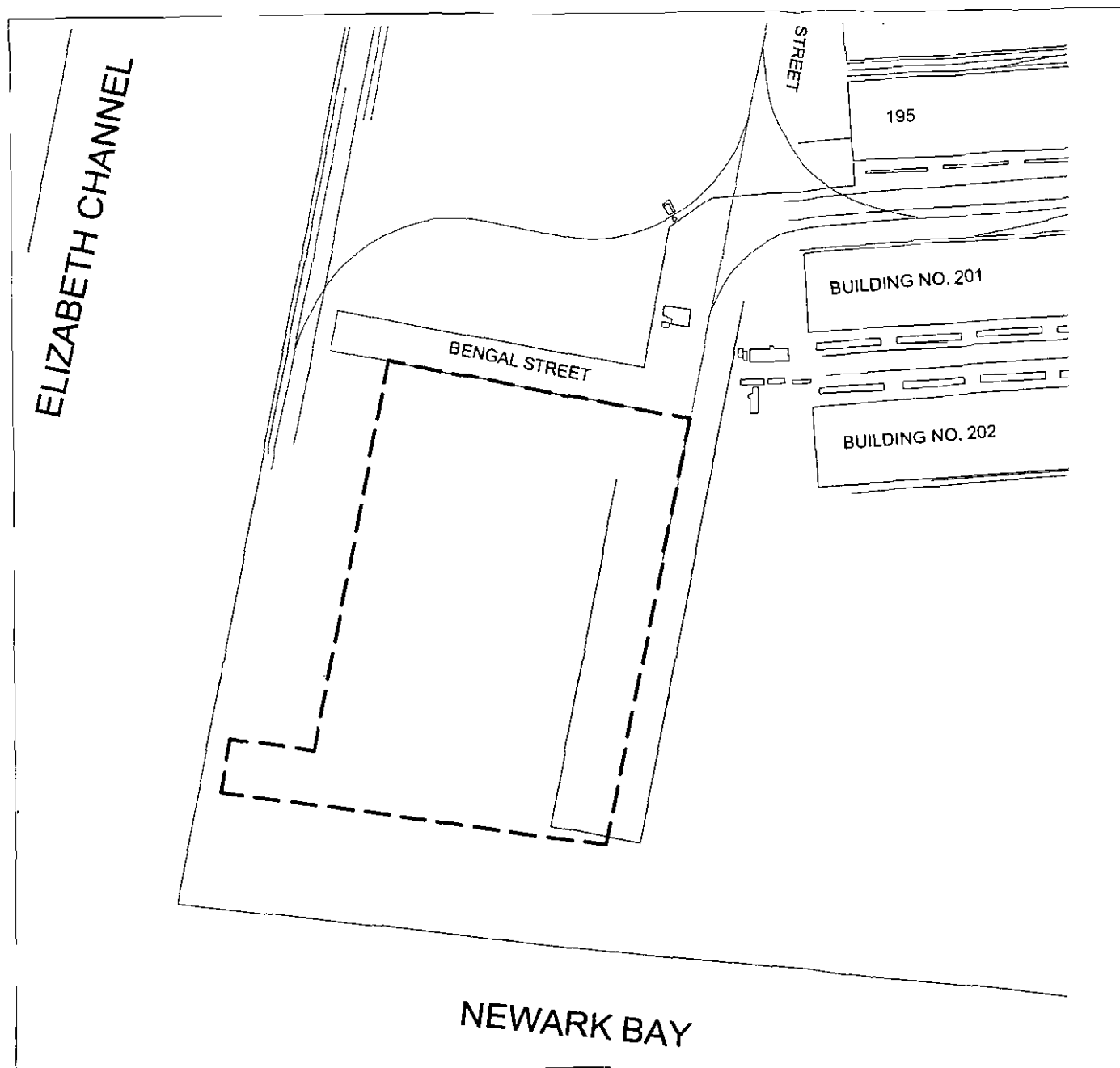
Figure 1

SITE LOCATION MAP

Source Map: Port Authority of New York
and New Jersey Map of Port
Facilities

g:\MetMetals\RAW\Figures\0083\Fig1SiteLocationMap

g:\MetMetals\RAW\Figures\0083\Fig1SiteLocationMap



**THE PORT AUTHORITY
OF NY & NJ**

Figure 2

SITE PLAN

LEGEND:

— — SITE BOUNDARY

SCALE: 1" = 200'

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section
BORING REPORT

SHEET 1 OF 3

SURFACE ELEV.

DATE 6-23-99

BORING NO.

SB-1

CONTRACT NO.

426-99-006

NAME OF CONTRACTOR

EPI

SUBJECT

PN METRO METALS

LOCATION

Laid out by Consultant (Excel)

ON

CASING SIZE HOLE TYPE

NUMBER 120 Probe HAMMER

1 FALL 1 FALL

LER

ECTOR

McDutch / B. Kokot

12- HARDWOOD

CASING DEPTH

POUNCE SPOON RE-SAMP.

NO. NO.

SAMPLE DESCRIPTION AND REMARKS
LINE LOCATES CHANGE OF PROFILE

MAURO

1

48"

2

3

4

5

Bottom of Boring

0.5'-1.0' bottle #C067

2'-2.5' bottle #C068

4.0'

Bottom of Boring

0.5'-1.0' bottle #C067

2'-2.5' bottle #C068

4.0'

Bottom of Boring

0.5'-1.0' bottle #C067

2'-2.5' bottle #C068

4.0'

Bottom of Boring

0.5'-1.0' bottle #C067

2'-2.5' bottle #C068

4.0'

Bottom of Boring

0.5'-1.0' bottle #C067

2'-2.5' bottle #C068

4.0'

Bottom of Boring

0.5'-1.0' bottle #C067

2'-2.5' bottle #C068

4.0'

Bottom of Boring

0.5'-1.0' bottle #C067

2'-2.5' bottle #C068

4.0'

Bottom of Boring

0.5'-1.0' bottle #C067

2'-2.5' bottle #C068

4.0'

Bottom of Boring

0.5'-1.0' bottle #C067

2'-2.5' bottle #C068

4.0'

Bottom of Boring

NOTES: 1 — Length recovered; 0' — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006

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THE PORT AUTHORITY OF N. & N.J.

ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN metro Metals
LOCATION: laid out by consultant DATE: 6/23/99
RING No: SB-1 TOTAL No. OF SAMPLES: 2

NATURE OF ALL

PRESENT AT SAMPLING

ELINQUISHED

DATE

RECEIVED

Y SIGN)

TIME

BY (SIGN)

ELINQUISHED

DATE

RECEIVED

Y SIGN)

TIME

BY (SIGN)

ELINQUISHED

DATE

RECEIVED

TIME

BY LAB

MARKS:

2 samples taken in 2 one pt. JARS
and bottle # C067 0.5' - 1.0'
C068 2' - 2.5'

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section
BORING REPORT

PROJECT PN METRO METALS		NAME OF CONTRACTOR EPI		BORING NO. SB-2		SHEET 1 OF 3 SURFACE ELEV.	
LOCATION Had out by Consultant				CONTRACT NO. 426-49-006		DATE 6-23-99	
OWNER B. KOKOT		CASING SIZE 12"		HOLE TYPE EXCEL		GROUND WATER LEVEL	
DRILLER J. Oudeh		SPINNING 12"		RE-COND 48"		SAMP. NO.	
DEPTH 0		SPINNING MACRO		RE-COND 48"		SAMP. NO.	
DEPTH 1		SPINNING MACRO		RE-COND 48"		SAMP. NO.	
DEPTH 2		SPINNING MACRO		RE-COND 48"		SAMP. NO.	
DEPTH 3		SPINNING MACRO		RE-COND 48"		SAMP. NO.	
DEPTH 4		SPINNING MACRO		RE-COND 48"		SAMP. NO.	
DEPTH 5		SPINNING MACRO		RE-COND 48"		SAMP. NO.	
DEPTH 6		SPINNING MACRO		RE-COND 48"		SAMP. NO.	

DATE	TIME	DEPTH	REMARKS
			A Asphalt PAVEMENT 0.5'
			B CRUSHED ROCK, little br. m.F Sand SUBGRADE 1.0'
			C Fill gray-br. m.F Sand, some gravel, tr. silt (Sample saved Bottle # C072) 1.5'
			D Fill red-br. m.F Sand, tr. silt, tr. gravel 3.0'
			E Fill red-br. m.F Sand, tr. silt, tr. gravel (Sample saved Bottle # C073) 3.5'
			F Fill red-br. m.F Sand, tr. silt, tr. gravel 4.0'
			Bottom of Boring
			#C072 1'-1.5'
			#C073 3'-3.5'

NOTES: 1 — Length recovered: 0' — Loss of Sample, T — Trap used

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN Metro Metals
LOCATION: Laid out by Consultant DATE: 6-23-99
DRILLING No: SB-2 TOTAL No. OF SAMPLES: 2

NATURE OF ALL PRESENT AT SAMPLING My Ode

INQUIRED	DATE	RECEIVED
SIGN	TIME	BY (SIGN)
INQUIRED	DATE	RECEIVED
SIGN	TIME	BY (SIGN)
INQUIRED	DATE	RECEIVED
SIGN	TIME	BY LAB

MARKS: 2 samples taken in 2 one pt. JARS
and bottle #C072 1.0' - 1.5'
#C073 3.0' - 3.5'

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section
BORING REPORT

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SHEET 1 OF 3	
BCT PJ METRO METALS	NAME OF CONTRACTOR EPI
BORING NO. SB-3	SURFACE ELEV.
LOCATION Laid out by Consultant	CONTRACT NO. 426-99-006
DATE 6-23-99	

CASING SIZE		HOLE TYPE	GROUND WATER LEVEL			
"O.D."	"I.D."		Date	Time	Depth	Remarks
G.W. Probe # FALL		HAMMER # FALL				
B. KOTOT EXCEL M. Oudeh / R. Harwood						

BORING DEPTH (FT.)	DEPTH	SPOON BLOWS/6"	RE- COR'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
0		MACRO			
1					Misc. fill
2			48"	1	
3					
4					
5					
					4.0' Bottom of Boring
					1'-1.5' #1071
					3'-3.5' #1074

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN metro Metals
LOCATION: Laid out by Consultant DATE: 6/23/99
DRING No: SB-3 TOTAL No. OF SAMPLES: 2

SIGNATURE OF ALL

SENT AT SAMPLING

WITNESSED	DATE	RECEIVED
(SIGN)	TIME	BY (SIGN)

WITNESSED	DATE	RECEIVED
(SIGN)	TIME	BY (SIGN)

WITNESSED	DATE	RECEIVED
(SIGN)	TIME	BY LAB

REMARKS: 2 samples taken in 2 one pt. TANS
and Bottle # C071 1'-1.5'
C074 3'-3.5'

THE PORT AUTHORITY OF NY & NJ

**Engineering Department
Construction Division
Materials Engineering Section
BORING REPORT**

PROJECT				NAME OF CONTRACTOR		BORING NO.	SHEET 1 OF 3
PN METRO METALS				EPI		SB 4-A	SURFACE ELEV.
LOCATION aid out by Consultant						CONTRACT NO. 426-99-006	DATE 6-24-99
		CASING SIZE	HOLE TYPE	GROUND WATER LEVEL			
"O.D."	"I.D."			Date	Time	Depth	Remarks
HAMMER		GEO. PROBE					
# FALL		# FALL					
DRILLER BRIAN KOKOT							
VECTOR		EXCEL					
D. OUDEN		P. HARDWOOD					
BORING NO./FT.	DEPTH	SPOON BLOWS/S"	RE-COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE		
0		MARCO					
2			4 1/2"	1	Misc. Fill		
4		MARCO			9'0"		
6			32"	2	Misc. Fill		
8					5'0"		
10					Fill br. m-f sand, tr. gravel, tr. silt		
12					Bottom of boring 8'0"		
10'-1.5'					Bottle # C204		
5'-6'					Bottle # C205		

NOTES: 1 — Length recovered: 0" — Loss of Sample. T — Trap used

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Sheet 2 of 3

PID Model: Mini RAE

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

PROJECT: PJ METRO METALS
LOCATION: Laid out by Consultant Excel DATE: 6-24-99
DRILLING No: SB4-A TOTAL No. OF SAMPLES: 2

NATURE OF ALL PRESENT AT SAMPLING
W. J. Oehl
UNOBTAINED SIGN) DATE 6-24-99 RECEIVED
SIGN) TIME BY (SIGN)
UNOBTAINED DATE RECEIVED
SIGN) TIME BY (SIGN)
UNOBTAINED DATE RECEIVED
SIGN) TIME BY LAB

REMARKS: 2 Samples taken in 2 one qt. Jars

Bottle # C204 1.0' - 1.5'
C205 5.5' - 6'

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section
BORING REPORT

PROJECT PJ METRO METALS SITE		NAME OF CONTRACTOR EPI		BORING NO. SB 4.B		SHEET 1 OF 3	
LOCATION Laid out by Consultant				CONTRACT NO. 426-99-006		DATE 6-24-99	
ON		CASING SIZE	HOLE TYPE	GROUND WATER LEVEL			
"O.D." "I.D."				Date	Time	Depth	Remarks
HAMMER # FALL		GEOP # FALL	HAMMER # FALL	6/24	Am	6'	Found in S#2
OPERATOR B. KOKOT							
DIRECTOR M. OUDEH / R. HARDWOOD							
BORING VS. FT.	DEPTH	SPOON BLOWS/6"	RE- COVERED	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE		
0		MACRO			4.5' fill (typical)		
2			48"	1			
4		MACRO			Fill br. m.f. sand, tr. gravel, tr. s. H		
6			48"	2			
8					Bottom of Boring		
10							
					0.5'-1.0' # C210		
					5.5'-6' # C211		

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used

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ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN METRO METALS

LOCATION: laid out by consultant DATE: 6-24-99

DURING No: SB4-B TOTAL No. OF SAMPLES: 2

NATURE OF ALL PRESENT AT SAMPLING		
		
RELINQUISHED	DATE 6-24-99	RECEIVED
BY (SIGN)	TIME	BY (SIGN)
RELINQUISHED	DATE	RECEIVED
BY (SIGN)	TIME	BY (SIGN)
RELINQUISHED	DATE	RECEIVED
BY (SIGN)	TIME	BY LAB

REMARKS: 2 samples taken in 2 one pt. JARS

0.5'-1.0' # C210

5.5'-6' # C211

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Sheet 2 of 3

Sheet 2 of 3

PID Model: $\min. RAE$

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: PJ Metro Metals Site

LOCATION: Laid out in the field by consultant DATE: 6-23-99

RING No: SB5-A TOTAL No. OF SAMPLES: 4

SIGNATURE OF ALL PRESENT AT SAMPLING		
ACQUISISHED	DATE	RECEIVED
(SIGN)	TIME	BY (SIGN)
ACQUISISHED	DATE	RECEIVED
(SIGN)	TIME	BY (SIGN)
ACQUISISHED	DATE	RECEIVED
(SIGN)	TIME	BY LAB

REMARKS: 4 samples taken in 4 one pt. Jars
and the following bottles

# C070	0' - 0.5'
# C165	1.5' - 2.0'
# C077	2.5' - 3.0'
# C166	6.5' - 7.0'

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Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT PN METRO METALS SITE		NAME OF CONTRACTOR CRAIG		BORING NO. SB 5-B		SHEET 1 OF 3	
LOCATION Laid out by Consultant as per dwg.		CONTRACT NO. 426-99-006		DATE 6-23-99		SURFACE ELEV.	
HOLE NO.		CASING SIZE		HOLE TYPE		GROUND WATER LEVEL	
"O.D."		"I.D."		HAMMER		Remarks	
"FALL"		"FALL"		"FALL"			
DRILLER B. KOKOT		RECTOR m. Duden / R. Haddwood		SAMP. NO.		SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE	
DEPTH	SPOON BLOWS	RE- COY'D					
0	MACRO		Misc. fill br. ylf sand, wood, crushed rock, gravel, Silt				
3		46"	Misc. fill dk br. c-f sand, wood, concrete fragments, tile, gravel, Silt				
6	MACRO	36"	No Recovery (broke off)				
9			Fill grey to br. ylf sand, fr. gravel, tr. Silt				
12			Bottom of boring				
15			#C131 0'-0.5' #C135 2'-2.5' #C133 7'-7.5'				

NOTES: 1 — Length recovered: 0" — Loss of Sample. T — Trap used

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN METRO METALS

LOCATION: laid out by Consultant as per Dig DATE: 6-23-99

DRAWING No: SB5-B TOTAL No. OF SAMPLES: 3

NATURE OF ALL PRESENT AT SAMPLING *[Signature]* *[Signature]*

RELINQUISHED <i>[Signature]</i> <i>[Signature]</i>	DATE 6/23/99	RECEIVED
SIGN)	TIME	BY (SIGN)

RELINQUISHED	DATE	RECEIVED
SIGN)	TIME	BY (SIGN)

RELINQUISHED	DATE	RECEIVED
SIGN)	TIME	BY LAB

REMARKS: 3 Samples taken in 3 one pt. JARS
and bottle # C171 0'-0.5'
C135 2'-2.5'
C133 7'-7.5'

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Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

SHEET 1 OF 3

PROJECT PJ METRO METALS SITE	NAME OF CONTRACTOR EPI	BORING NO. SBS-C	SURFACE ELEV.
--	----------------------------------	----------------------------	-------------------

LOCATION 2 out in the field as per drawing by the Consultant	CONTRACT NO. 426-99-006	DATE 6-23-99
--	-----------------------------------	------------------------

POOR	CASING SIZE	HOLE TYPE	GROUND WATER LEVEL			
"O.D."	"I.D."		Date	Time	Depth	Remarks
DRILLER GEOPROBE # FALL # FALL			6/23	2:19 PM		Found in S#2
SUPERVISOR Brian Kokot Consultant R. Harwood						

DEPTH FEET	SPOON BLOWS/FT	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
0	MACRO			
3		22"	1	Misc. fill br. Sand, wood, crushed Rock, gravel, silt.
				Fill gray-br. m-f Sand, tr. gravel, tr. silt 3.7'
6	MACRO	24"	2	Fill gray m-f Sand tr. gravel, tr. silt 4.0'
				Clay and silt 7.7'
9				Bottom of Boring 8.0'
				#C 140 2'-2.5'
				#C 164 3'-4'
12				NOTE: S#2 had br. Sand, gravel on top this is from S#1. The Driller did not clean out hole 0' to 4' (this is common practice with Geoprobe).
15				

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Sheet 2 of 3

PID Model: *Mini RSE*

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

OBJECT: <u>PN METAL METALS SITE</u>	
LOCATION: <u>Lead out by Consultant</u>	DATE: <u>6-23-99</u>
RING No: <u>SB 5-E</u>	TOTAL No. OF SAMPLES: <u>2</u>

NATURE OF ALL PRESENT AT SAMPLING intz Odd

INQUIRED <u>intz Odd</u>	DATE <u>6-23-99</u>	RECEIVED
(SIGN)	TIME	BY (SIGN)
INQUIRED	DATE	RECEIVED
(SIGN)	TIME	BY (SIGN)
INQUIRED	DATE	RECEIVED
(SIGN)	TIME	BY LAB

REMARKS: 2 samples taken in 2 one pt. JARS

and Bottle #140 2'-2.5'

164 3.5'-4'

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Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

SHEET 1 OF 3

PROJECT IN METRO Metals Site C	NAME OF CONTRACTOR EPI	BORING NO. SB5-D	SURFACE ELEV.
LOCATION aid out by Consultant	CONTRACT NO. 426-99-006	DATE 6-25-99	

WELL NO.	CASING SIZE	HOLE TYPE	GROUND WATER LEVEL			
*O.D.	*I.D.		Date	Time	Depth	Remarks
6	6	6	6/25	pm	4.5'	
DRILLER Paul BARKALOW						
GEOTECH R. HARDWOOD (EXERCISE CONSULTANT)						

DEPTH FEET	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
0	0	MACRO			
1	1		24"	1	Misc. Fill (Typical)
2	2				
3	3				2.5'
4	4	MACRO			refusal 3.0'
5	5				
6	6		40'	2	Green m.f. Sand
7	7				
8	8				5.5'
9	9				clay & silt
10	10				7.0'
					Bottom of Boring
					0'-0.5' bottle # C213
					1.5'-2.0' # C214
					3.5'-4.0' # C215

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Sheet 2 of

PID Model: Mini RAE

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

OBJECT: PN Metro Metals Site C
 LOCATION: Laid out by consultant DATE: 6-25-99
 RING No: SB5D TOTAL No. OF SAMPLES: 3

NATURE OF ALL
 SENT AT SAMPLING

ACQUISHED	DATE	RECEIVED
SIGN)	TIME	BY (SIGN)
ACQUISHED	DATE	RECEIVED
SIGN)	TIME	BY (SIGN)
ACQUISHED	DATE	RECEIVED
SIGN)	TIME	BY LAB

WORKS: 3 samples taken in 3 JARS
and bottle # C213 0'-0.5'
C214 1.5'-2'
C215 3.5'-4'

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Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

SHEET 1 OF 3	
BCT Metro Metals Site	NAME OF CONTRACTOR SB S-E
BORING NO. 426-99-006	SURFACE ELEV. 6-23-99
CONTRACT NO. 426-99-006	
DATE 6-23-99	
and out in the field as per drawing	
Casing Size 10"	Hole Type HAMMER
Date 6/23	Time 12:20 PM
Depth 9'	Remarks Found in S#3
GROUND WATER LEVEL	
Consultant BRIAN KOLUT CONSULTANT RON HARDWOOD	
Boring No. 426-99-006	Sample No. 1
Depth 0	Sample Description and Remarks Misc. Fill Asphalt fragments, Sand, Crushed Rock 0.5'
Depth 1	Sample Description and Remarks Misc. Fill dk-brown m.t. sand, Crushed Rock, Metal, gravel 1.0'
Depth 2	Sample Description and Remarks Misc. Fill dk-brown to black fine Sand, Silt, Crushed Rock fragments, Metal fragments, glass, asphalt fragments 3.5'
Depth 3	Sample Description and Remarks Fill grey m.t. sand, tr. gravel, tr. silt 4.0'
Depth 4	Sample Description and Remarks Misc. Fill dk-grey-black m.t. sand, Silt, wood fragments, Some gravel 6.0'
Depth 5	Sample Description and Remarks Fill red br. m.t. sand, tr. gravel, tr. silt 6.5'
Depth 6	Sample Description and Remarks Same 8.0'
Depth 7	Sample Description and Remarks Same 9.5'
Depth 8	Sample Description and Remarks Fill red br. m.t. sand, tr. gravel, tr. silt 10.0'
Depth 9	Sample Description and Remarks Same 11.5'
Depth 10	Sample Description and Remarks Fill grey m.t. sand, tr. gravel, tr. silt 12.0'
Depth 11	Sample Description and Remarks Bottom of boring
Depth 12	Sample Description and Remarks Sand 0.5' to 1.0' #C167 6'-6.5' #C168
Depth 13	Sample Description and Remarks " 2.5' to 3.0' #C169 9.5'-10' #C170

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used

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G No. SB 5-E

DATE: 6-23-99

READINGS BY: M. DUDDELL

PID Model: *Mini RAE*

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
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THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

BCT 12 METRO METALS		NAME OF CONTRACTOR EPI		BORING NO. SB 5F		SHEET 1 OF 1	
ACTION Laid out by Consultant		CONTRACT NO. 426-99-006		DATE 6-25-99		SURFACE ELEV.	
Casing Size "O.D." "I.D."		HOLE TYPE		GROUND WATER LEVEL			
HAMMER				Date	Time	Depth	Remarks
# FALL 6' 0" 4'		# FALL					
OPER ER Paul BARKALOW							
CTOR R. HARDWOOD (EXCEL Consultant)							
BORING "SFT."	DEPTH	SPOON BLOWS"	RE- COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE		
0					DID NOT OBTAIN SAMPLES.		
					The Consultant, EXCEL, DID		
					NOT CALL P.A. MATERIALS ENGINEERING		
					TO NOTIFY OF THE TIME AND		
					DATE <u>SB5-F</u> WILL BE SAMPLED.		
5							
10							
15							
20							
25							

NOTES: 1 — Length measured; 0' — Loss of Sample; T — Trap used

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BORING REPORT

BORING REPORT

[illegible]

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PORT AUTHORITY OF NY & NJ
Engineering Department - Materials Division

Installation Report

Sheet 2 of 4

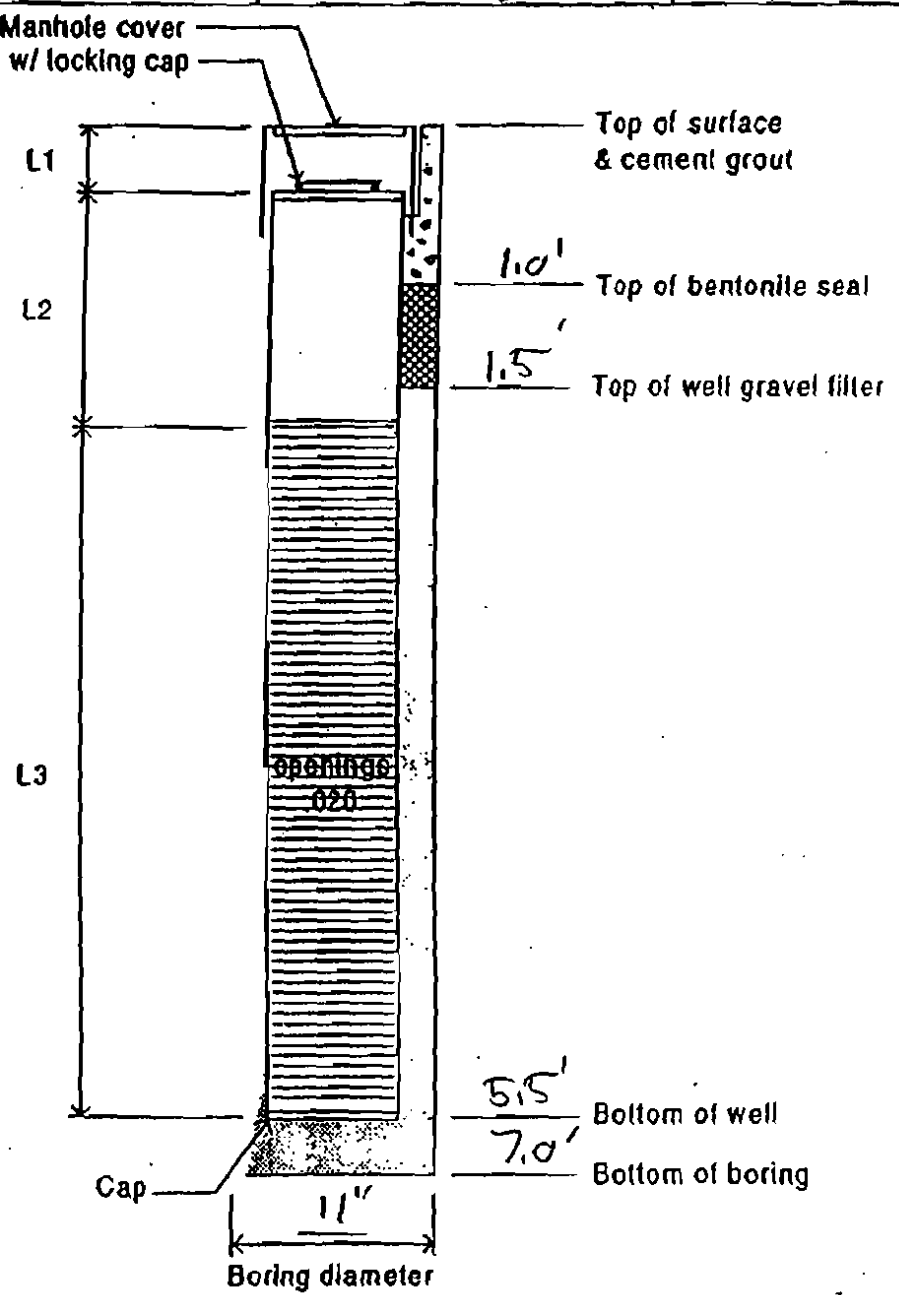
PROJECT N - Metro Metals Site			CONTRACT NO. 426-99-006	
LOCATION AS Laid out in field as per Drawing			CONTRACTOR Craig	
ID 1W-C1	WELL TYPE "A" Monitor	INSPECTOR D Howe	DRILLER J O such	DATE 6/27/99

Development Report

(NOTE: WATER LEVEL READINGS FROM TOP OF PVC)

DATE 6-24-99	WATER LEVEL BEFORE 3.5'	WATER LEVEL AFTER 3.5'	TAKEN 15	MINUTES AFTER
-----------------	----------------------------	---------------------------	-------------	---------------

L1 = 0.3
L2 = 1.7
L3 = 3.5



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[illegible]

THE PORT AUTHORITY OF N.Y. & N.J.

ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 4 of 4

OBJECT: PN-Metric Metals Site

LOCATION: As laid out in Field as per Drawing DATE: 6/23/99

DURING No: MW-C1 TOTAL No. OF SAMPLES: 2

NATURE OF ALL

SENT AT SAMPLING

UNQUISHED

(SIGN)

DATE 6/23/99

RECEIVED

TIME

BY (SIGN)

UNQUISHED

(SIGN)

DATE

RECEIVED

TIME

BY (SIGN)

UNQUISHED

(SIGN)

DATE

RECEIVED

TIME

BY LAB

MARKS:

- Soil Samples for 1-16oz. and 1-MoThand Sol Bottle Each

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**Engineering Department
Construction Division
Materials Engineering Section**

BORING REPORT

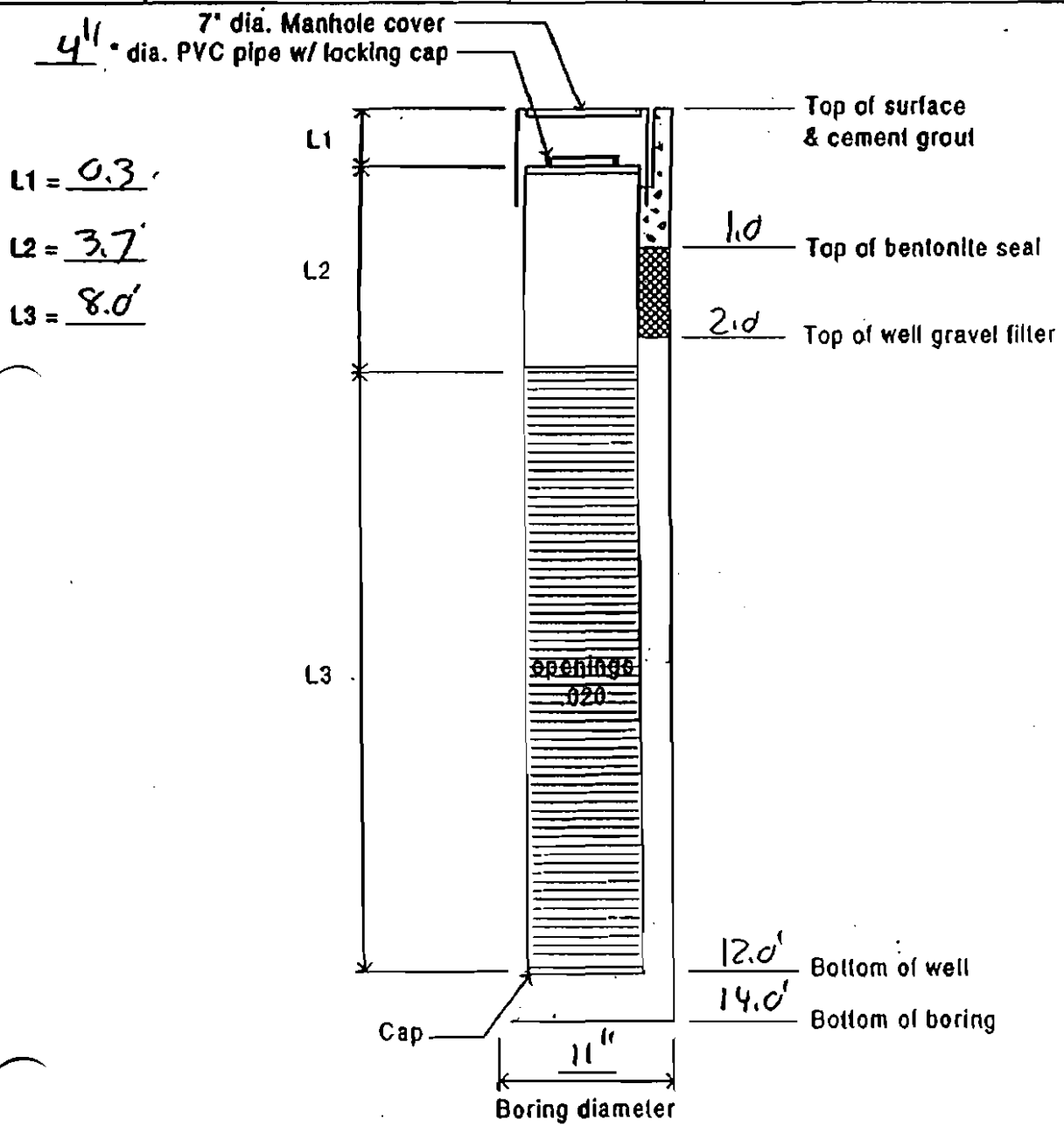
SCT	NAME OF CONTRACTOR	BORING NO.	SHEET 1 OF 4
N- Metro Metals Site	Craig Drilling	MW-C2	SURFACE ELEV.
TION	Laid out in field as per Drawing	CONTRACT NO. 426-99-006	DATE 6/22/99
DON	CASING SIZE HOLE TYPE	GROUND WATER LEVEL	
2 "O.D. 2 7/8 "I.D.	AUGERS "D" Mon-Jay	Date	Time
ER Safety	HAMMER	Depth	Remarks
1/4 FALL 30	FALL	6/22/99	1:10 PM
ALLER	O Osoch	7.0	5#4
STOR	D'Hare		
NG BFT.	DEPTH	SPOON BLOWS/S'	RE-COV'D
0	0		SAMP. NO.
			*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
			Asphalt CRUSHED Stone
			Misc Fill - Gravel, Sand, SILT, clays, etc
			FILL-M-F Brown Sand, Ir SILT, Ir Gravel
			Same
			Same
			Fill - M-F Gray Sand, Ir SILT, Ir Gravel
			Fill - MF Gray Sand, Little Red Brown clayey SILT, Ir SILT red
			Fill - Red Brown SILTY Clay, Tr P Sand
			Black & gray organic SILTY clay
			Bottom of Boring
			All Samples checked with PID Meter
			S# 1 1-2' & S# 4 6-7' Saved for Testing
			Remaining Samples Discarded
			Methanol Sol Bottle C078 S# 1 1-2'
			C079 S# 4 6-7'

PORT AUTHORITY OF NY & NJ
Engineering Department - Materials Division

Installation Report				Sheet 2 of 4
PROJECT PH - Metro Metals Site				CONTRACT NO. 426-99-006
LOCATION As Laid out in field as per Drawing				CONTRACTOR Craig
WELL NO. NW-C2	WELL TYPE 4" Monitor	INSPECTOR D Howe	DRIILLER D Osuch	DATE 6/22/99

Well Development Report (NOTE: WATER LEVEL READINGS FROM TOP OF PVC)

W-24-99	WATER LEVEL BEFORE 6.7'	WATER LEVEL AFTER 6.9'	TAKEN 15 MINUTES AFTER
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Notes: Hole Back filled 12.0'-14.0' with Bentonite

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Sheet 3 of 4

Sheet 3 of 4

IRING No. MU - C2

DATE: 6/22/99

FIELD READINGS BY: *D. Howe*

PID Model: *M12, RAE*

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 4 of 4

SUBJECT: PN- Metro Metals	
LOCATION: Aslaid with Field as per Drawing	DATE: 6/22/99
DRILLING No: MW-C2	TOTAL No. OF SAMPLES: 2

SIGNATURE OF ALL PRESENT AT SAMPLING	
	

UNWITNESSED	DATE 6/22/99	RECEIVED
(SIGN)	TIME	BY (SIGN)
		

UNWITNESSED	DATE	RECEIVED
(SIGN)	TIME	BY (SIGN)

UNWITNESSED	DATE	RECEIVED
(SIGN)	TIME	BY LAB

MARKS:

2 Soil Samples each in 1-lb bag & 1 Matheson Sol Bottle

THE PORT AUTHORITY OF NY & NJ

**Engineering Department
Construction Division
Materials Engineering Section**

BORING REPORT

[illegible]

PORT AUTHORITY OF NY & NJ

Engineering Department - Materials Division

II Installation Report

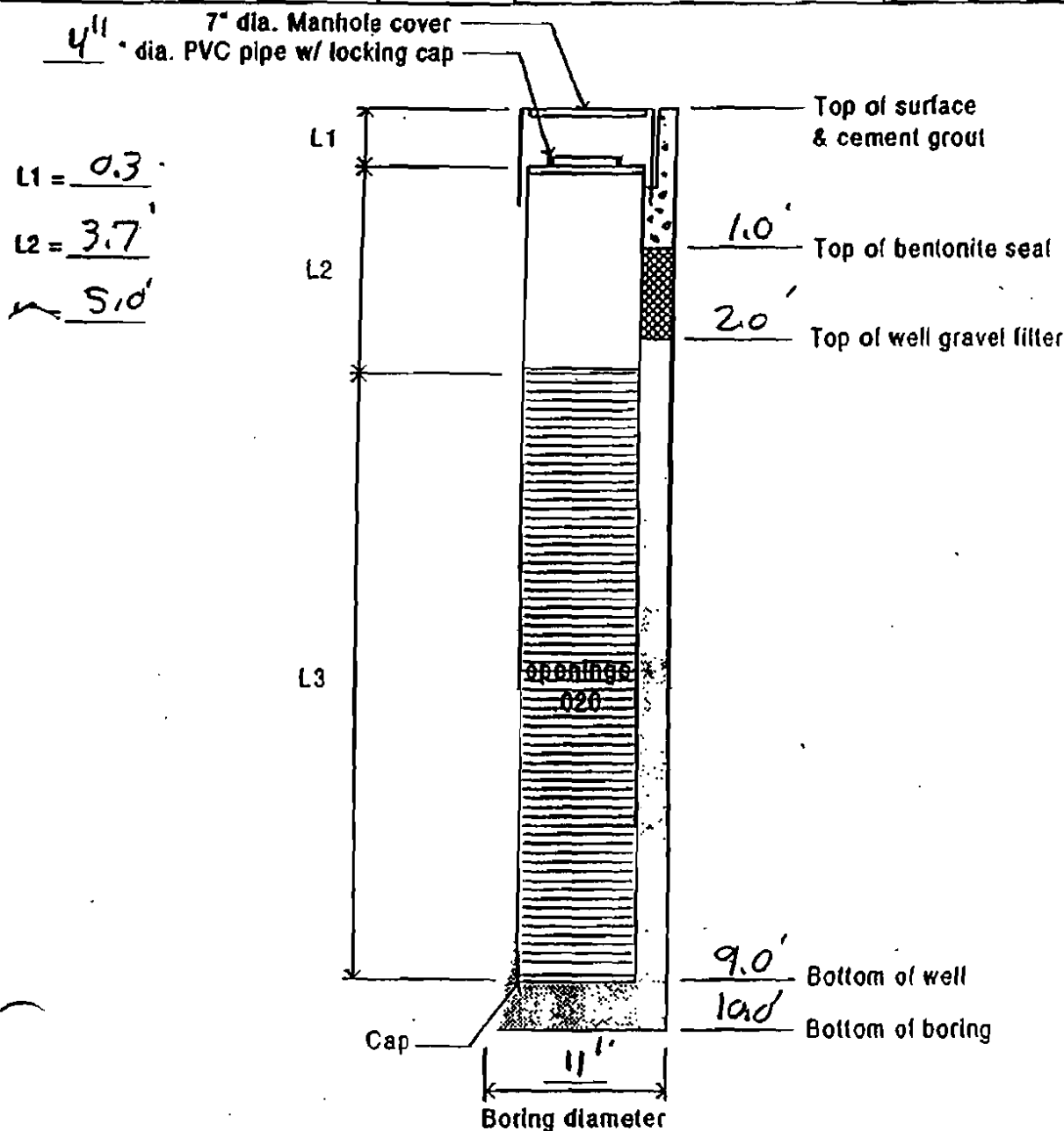
Sheet 2 of 4

PROJECT PN - Metro Metals Site				CONTRACT NO. 426-99-006
LOCATION Island cut in field as per Drawings				CONTRACTOR Craig's
ID. AW-C3	WELL TYPE 8" Monitor	INSPECTOR D. Hare	DRILLER D. Osech	DATE 6/23/99

I Development Report

(NOTE: WATER LEVEL READINGS FROM TOP OF PVC)

-24-99	WATER LEVEL BEFORE 7.0'	WATER LEVEL AFTER 7.1'	TAKEN 15	MINUTES AFTER
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Sheet 3 of 4

PID Model: M141 RAE

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 4 of 4

PROJECT: PN - Metro Metal Site	
LOCATION: As laid out in field as per Drawing	DATE: 6/23/99
DRILLING No: MW-C3	TOTAL No. OF SAMPLES: 2

SIGNATURE OF ALL

PRESENT AT SAMPLING

UNWITNESSED

(SIGN)

DATE 6/23/99

RECEIVED

TIME

BY (SIGN)

UNWITNESSED

(SIGN)

DATE

RECEIVED

TIME

BY (SIGN)

UNWITNESSED

(SIGN)

DATE

RECEIVED

TIME

BY LAB

REMARKS:

2 Soil Samples in 1-16oz jar & 1 Moisture Soil Bottle each

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THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

SHEET 1 OF 4
SURFACE ELEV.
DATE 6/27/79

PROJECT PN- Metro Metals Site	NAME OF CONTRACTOR Craig Drilling	BORING NO. MW-C4
LOCATION 5 Laid out in field as per Drawing	CONTRACT NO. 476-99-006	
DATE 6/27/79		
CASING SIZE 3" O.D. 2 3/8" I.D.	HOLE TYPE Safety	
HAMMER 40 # FALL 30	# FALL	
DRILLER D. Osuch		
ECTOR D. Howe		

GROUND WATER LEVEL			
Date	Time	Depth	Remarks
6/27/79	2:15 PM	5.5'	While Hand Augering
6/27/79	7:30 AM	5.6'	Checked well

BORING DEPTH (FT.)	DEPTH	SPOON BLOWS/FT.	RE-CO'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
0		Hand Auger	Fill	1	Misc Fill, Sand SILT, Gravel, Metals, Wire, ETC
				2	Same
5				3	Fill - M-F Gray Sand Tr SILT, Tr Gravel
		43-40		4	Same
		28-18	22'	5	Same
		4-4		6	Same
10		4-4	22'	7	Black & Gray organic silty clay
					Bottom of Boring
15					
20					
25					

All Samples checked with PID Meter
S# 1 5'-2' & S# 3 5'-5.5' Saved for Testing
Remaining Samples Discarded

Methanol Sol Bottle S#1 C172
" " " S#3 C173

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Installation Report

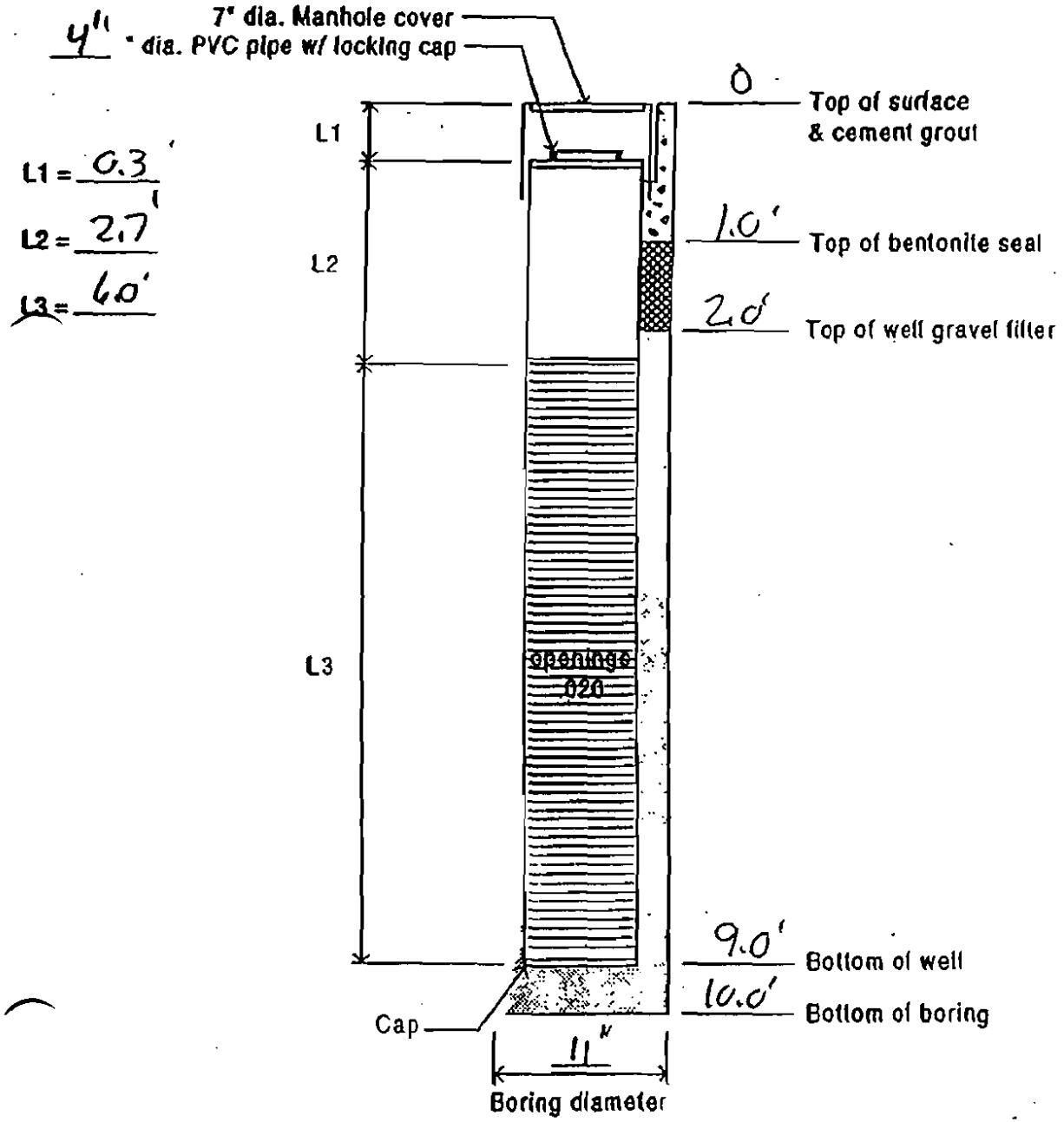
Sheet 2014

N - Notre Metals Site			CONTRACT NO. 426-99-006	
Laid out in field as per Drawing			CONTRACTOR C1018	
AW-CY	WELL TYPE B Monitor	INSPECTOR D Howe	DRILLER D Ouch	DATE 6/23/99

Development Report

(NOTE: WATER LEVEL READINGS FROM TOP OF PVC)

-24-99	WATER LEVEL BEFORE 5.6'	WATER LEVEL AFTER 5.8'	TAKEN 15 MINUTES AFTER
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**Engineering Department
Construction Division
Materials Engineering Section**

BORING REPORT

PROJECT		NAME OF CONTRACTOR		BORING NO.	SHEET / OF 4
LOCATION		CASING SIZE	HOE TYPE	CONTRACT NO.	SURFACE ELEV.
DATE					
PN - Metro Metals Site		Craig		MW C-5	
Is laid out ± 180' South of C-6 (as per drawings)				426-99-006	6-24-99
SPRINKLER	SPRINKLER	SPRINKLER	SPRINKLER	GROUND WATER LEVEL	
Date	Time	Depth	Remarks		
6-24-99	Am	8.5'	In S-5		
SPECTOR		SPECTOR		SPECTOR	
D. Osuch		T. Ryan			
*CASING OWB/FT.	DEPTH	SPRINKLER BLOWS/S"	RE- COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
	0	Hand Auger	Fall	1	Max Fill - Metals, Sand, silt D.T.
			Rise	2	Fill - Br C-F Sand, lit Gr, lit Silt
				3	Same
	5			4	Fill - Red Br M-F Sand, to Silt, to Gr
		13-18		5	Same
		31-33	20"	6	Same
		23-17		7	Same
	10	24-28	19"	8	Same
		5-6			
		7-9	14"		
		7-7			
		8-7	15"		
	15	4-5			
		3-4	16"		
Bottom of Boring ↑ 16.5					
+ Meth. Kettle # C-143 used for S-1 (1'-2')					
+ Meth. " # C-134 used for S-5 (8'-8.5')					
Note: Samples # 1 & 5 were saved for testing. All other samples were screened w/ P10 & then discarded.					

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Engineering Department - Materials Division

Well Installation Report

Sheet 2 of 4

PROJECT PN - Metro Metals Site				CONTRACT NO. 426-99-006	
LOCATION As laid out ± 130' S. of C-6				CONTRACTOR Craig	
WELL NO. MW-C5	WELL TYPE A Monitor	INSPECTOR T. Ryan	DRILLER D. Orzech	DATE 6-24-99	

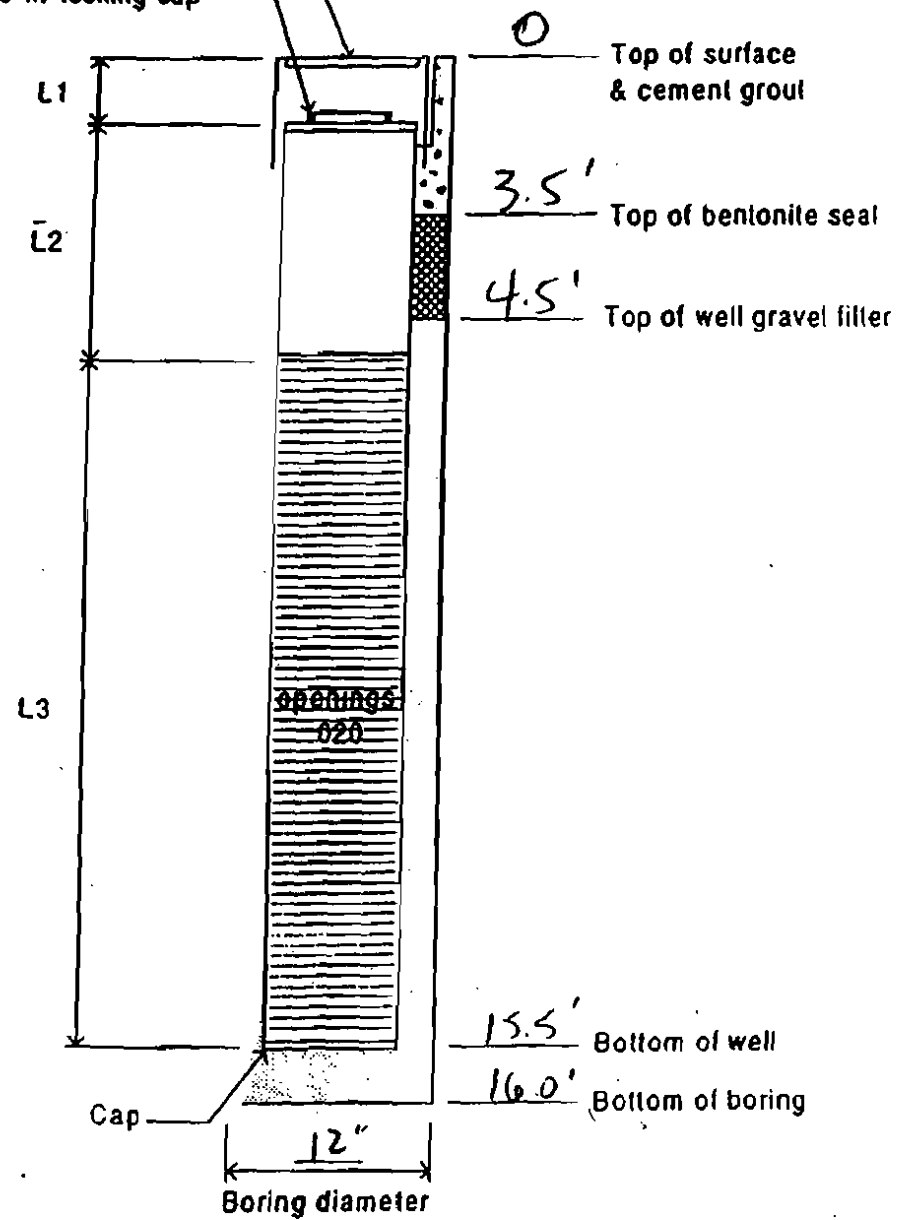
Well Development Report

(NOTE: WATER LEVEL READINGS FROM TOP OF PVC)

DATE 6-24-99	WATER LEVEL BEFORE 8.5'	WATER LEVEL AFTER 8.5'	TAKEN 15 MINUTES AFTER
------------------------	-----------------------------------	----------------------------------	-------------------------------

4 7" dia. Manhole cover
4 4" dia. PVC pipe w/ locking cap

L1 = **.3'**
L2 = **5.2'**
L3 = **10.0'**



MARKS: **Back filled w/ Best from 14' - 15.5'**

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 4 of 4

PROJECT: *PN-Metro Metals Site*

LOCATION: *As laid out \pm 180' So. of C-6*

DATE: *6-24-99*

BORING No: *MW-C5*

TOTAL No. OF SAMPLES: *2*

SIGNATURE OF ALL

PRESENT AT SAMPLING

T. Ryan

RELINQUISHED

DATE *6-24-99*

RECEIVED

BY (SIGN)

T. Ryan

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

2 samples in 2-16 oz jars & 2 meth jars

**Engineering Department
Construction Division
Materials Engineering Section**

SHEET 7 OF 8

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ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: *PN - Metro Metals Site*

LOCATION: *As laid out per drawing*

DATE: *6-24-99*

BORING No: *PA - C6*

TOTAL No. OF SAMPLES: *2*

SIGNATURE OF ALL

PRESENT AT SAMPLING

T. Ryan

RELINQUISHED

DATE *6-24-99* RECEIVED

BY (SIGN)

T. Ryan

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

MARKS:

2 samples in 2-16oz jars & 2-metl jars

THE PORT AUTHORITY OF NY & NJ

**Engineering Department
Construction Division
Materials Engineering Section**

BORING REPORT

PROJECT PN - Metro Metcal Site		NAME OF CONTRACTOR Craig		BORING NO. PA-C7		SHEET 1 OF 2	
LOCATION As laid out per drawing				CONTRACT NO. 426-99-006		DATE 6-24-99	
SPOON 3 o.d. 2 3/8 i.d.		CASING SIZE Auger		HOLE TYPE 1		GROUND WATER LEVEL	
HAMMER 140 # FALL 30"		HAMMER # FALL		Date 6-24-99		Time PM	
DRILLER D. Osuch		INSPECTOR T. Ryan		Depth 8.5'		Remarks In S-5	
CASING BLOW/FT.	DEPTH	SPOON BLOWS/FT.	RE-COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE		
		Hand Auger	Full Rec	1	Fill - Rt m-FSnd, Lt Gr. to Soil		
				2	Fill - Br C-FSnd, Lt Shells, Lt Gr.		
				3	Same		
	5			4	Fill - Rd Br Sal & Gr, Lt Shells		
		7-12	18"				
		15-20					
		15-17					
	16	20-20	20"	5	Same		
Bottom of Boring							
Note: Sample # 1 & 5 were saved for testing. All other samples were screened w/ P.D. & then discarded.							

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: <i>PN - Metro Metals Site</i>	
LOCATION: <i>As laid out as per drawing</i>	DATE: <i>6-24-99</i>
DRILLING No: <i>PA - C7</i>	TOTAL No. OF SAMPLES: <i>2</i>

SIGNATURE OF ALL

PRESENT AT SAMPLING

T. Ryan

RELINQUISHED

DATE *6-24-99*

RECEIVED

(SIGN)

T. Ryan

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

(SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

(SIGN)

TIME

BY LAB

REMARKS: *2 samples in 2-16 oz jars & 2-meth jars*

**Engineering Department
Construction Division
Materials Engineering Section
BORING REPORT**

PT		NAME OF CONTRACTOR		BORING NO.	SHEET 1 OF 3
P.O. Portis Fac		Craig Drilling		BM-N6	SURFACE ELEV.
Ladant by Pt Survey				CONTRACT NO. 426-99-006	DATE 10/2/00
CASING SIZE	HOLE TYPE	GROUND WATER LEVEL			
1" O.D. Auger "I.D."		Date	Time	Depth	Remarks
# FALL	HAMMER	10/2	8:10 PM	Dry	
P. Parvot /					
N. Howe					
LG SFT.	DEPTH	SPOON BLOWS/6"	RE-COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
0		Hand Dig	F.V.U.	1	Asphalt - false fill - Sand, Gravel, wood, silt, etc.
5					Bottom of Borings
10					All Soil checked with PID Meter
15					5#1 Saved for Testing
20					Remaining Soil Discarded

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Sheet 2 of

PID Model: Mini RDE

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

SUBJECT: PN- 010 Parts Fee

LOCATION: Aslaid out by PA Survey

DATE: 10/2/00

ING No: BH-N6

TOTAL No. OF SAMPLES: 1 Soil

SIGNATURE OF ALL

SENT AT SAMPLING

INITIALIZED

DATE 10/2/00

RECEIVED

(SIGN)

TIME

BY (SIGN)

INITIALIZED

DATE

RECEIVED

(SIGN)

TIME

BY (SIGN)

INITIALIZED

DATE

RECEIVED

(SIGN)

TIME

BY LAB

REMARKS:

Soil sample to 1-16oz jar

cel.

BORING REPORT

BORING REPORT

SNG NO./FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS
					LINE LOCATES CHANGE OF PROFILE
0		Hard Auger	Full	-	Misc. Fill
5					Obstruction found AT $\pm 2.6'$ Relocated Boring
10					
15					
20					
25					

NOTES: 1 — Length recovered; 0" — Loss of Sample. T — Trap used

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Construction Division
Materials Engineering Section

BORING REPORT

PROJECT 7N - NAPORAND SITE - BERTH 63		NAME OF CONTRACTOR CRAIG		BORING NO. 3H NSF		SHEET 1 OF 3	
LOCATION ± 24' NORTH - WEST OF THE ORIGINAL LOCATION				CONTRACT NO. 426-99-007		DATE 9-2-99	
SPOON 3 O.D. 2 1/8 I.D.		CASING SIZE AUGER		HOLE TYPE		GROUND WATER LEVEL	
HAMMER (SAFETY) 140 # FALL 30"		HAMMER					
DRILLER D. OUSCH		INSPECTOR CARLOS L. PEREZ		Date 9-2-99		Time PM	
				Depth 7.0'		Remarks Sample # 4	
CASING BLOWS/FT.	DEPTH	SPOON BLOWS/6"	RE. COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE		
AUGER	0	Roller bit HAND			ASPHALT		
		AUGER	18"	1	MISC. FILL (TOOK ENVIRONMENTAL SAMPLE) CRUSHED ROCK, SAND, SILT		
			24"	2	MISC. FILL - CRUSHED ROCK, SAND, METALS		
	5		24"	3	SAME AS ABOVE		
		8-10		3B	FILL - brown c-f SAND, little gravel, tr silt		
		17-16	20"	4	USED 3" SPOON. (TOOK ENVIRONMENTAL SAMPLE) SAME AS ABOVE		
	10				BOTTOM OF BORING		
	15						
	20						
	25						

NOTE: ALL SAMPLES WERE SCREENED USING THE MINI RAE. SAMPLES 1 & 4 WERE SAVED THE REMAINING SAMPLES WERE DISCARDED.

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Sheet 2 of 3

PID Model: HIN, RA E

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THE PORT AUTHORITY OF N.Y & N.J.

ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN - NAPOLANO SITE - BERTH 63

LOCATION: $\pm 24'$ NORTH. WEST OF THE ORIGINAL LOCATION DATE: 9-2-99

BORING No: BH NSF

TOTAL No. OF SAMPLES: 2

SIGNATURE OF ALL

PRESENT AT SAMPLING

Capt. D. Perez

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

(SIGN)

TIME

BY LAB

REMARKS:

2 - 16 oz JAR OF SOIL SAMPLE.

METH. BOTTLE:

SAMPLE # 1 \rightarrow E271

SAMPLE # 4 \rightarrow E267

65

1.517
67

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Engineering Department
Construction Division
Materials Engineering Section
BORING REPORT

PROJECT PN - NAPOREANO SITE - BERTH 63		NAME OF CONTRACTOR CRAIG Drilling		BORING NO. BH-N1	SHEET 1 OF 3
LOCATION Laid out in the field as per drawing		CONTRACT NO. 426-99-007		DATE 8/25/99	
SPOON 3" O.D. 2 3/8" I.D.	CASING SIZE 1 1/2" Augers	HOLE TYPE HAMMER	GROUND WATER LEVEL		
AMMER (SAFETY) 140 # FALL 30"	# FALL		Date 8/25	Time Am	Depth 5.0'
DRILLER S. Burns			Remarks found in S #2		
INSPECTOR M. Oudeh					

CASING FWS/FT.	DEPTH	SPOON BLOWS/G	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE	
	0				Asphalt Pavement	0.3'
Hard Auger		HAND Auger	Full	1 A	Artic. Fill Sand, Metal, Gravel, Wood, Rubber, ETC.	1.9'
				2	Fill gray m-f Sand, fr. gravel fr. silt	
	5			3 A	Same	
1 1/2" Auger		1-0	22"	3 B	gray br silty clay, fr. fine sand	5.8'
		1-1		4	Same	
		1-1	24"	5 A	Same	9.4'
	10	3-3		5 B	FEAT	12.0'
					Bottom of Boring	
					All samples were screened for VOC's	
					With a PID the following samples were saved	
					0.5' - 1.5' saved	
					4' - 4.5' saved	
					And the remaining were discarded.	
	15					
	20					
	25					

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Sheet 2 of 2

[illegible]

THE PORT AUTHORITY OF N.Y & N.J.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PJ NAPORANO SITE - BERTH 63
LOCATION: Laid out in the field as per drawing DATE: 8/25/99
BORING No: BH-N 1 TOTAL No. OF SAMPLES: 2

SIGNATURE OF ALL

[Signature]

PRESENT AT SAMPLING

RELINQUISHED	DATE <u>8/25/99</u>	RECEIVED
BY (SIGN)	TIME	BY (SIGN)

RELINQUISHED	DATE	RECEIVED
BY (SIGN)	TIME	BY (SIGN)

RELINQUISHED	DATE	RECEIVED
BY (SIGN)	TIME	BY LAB

REMARKS: 2 Samples taken in 2 one pt. JAGs, ~~2~~ 2 UAS, AND
0.5'-1.5' Bottle # E146
4.0'-4.5' Bottle # E147

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**Engineering Department
Construction Division
Materials Engineering Section**

BORING REPORT

PROJECT PN - NAPIERANOSITE - BERTH 63		NAME OF CONTRACTOR CRAIG		BORING NO. MW-N2		SHEET 1 OF 4	
LOCATION Laid out in the field as Per drawing		CONTRACT NO. 426-99-007		DATE 8/27/99		SURFACE ELEV.	
SPOON 3 - O.D. 2 3/8" I.D.		CASING SIZE 4 5/8" Aug.		HOLE TYPE Type "A" HD			
WINNER (Safety) 140' FALL		HAMMER 30' FALL					
DRILLER S. BURNS							
SPECTOR M. OudeH							

GROUND WATER LEVEL			
Date	Time	Depth	Remarks
8/27	12:44 PM	6.5'	Found in S#3

LOGGING DWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE	
Hand	0	Hand	full	1	Asphalt pavement	0.3'
YGR		Ruger	1		Misc. Fill sand, wood, nails, etc	
				2 A	Same	
				B	fill grey m. f sand, tr. gravel, tr. silt	3.5'
	5			3	Same	
		11-16	20"		Fill grey-br. cl. Sand, little gravel, tr. silt	
		14-16		4		
Aug		6-8	20"	5 A	Fill br. grey cl. Sand, little gravel, little silt	9.8'
		8-8		B	red-br. clayey silt, little fine sand	
	10	2-2	18"	6 A	Same	11.2'
		2-2		B	PERT	12.0'
					Bottom of Boring	
	15				NOTE: All samples were screened for VOC'S WITH A PID. S#1 (0.5'-1.5') AND #3 (4.5' - 5.0') WERE SAVED AND THE REMAINING WERE DISCARDED.	
	20					
	25					

PORT AUTHORITY OF NY & NJ

Engineering Department - Materials Division

Well Installation Report

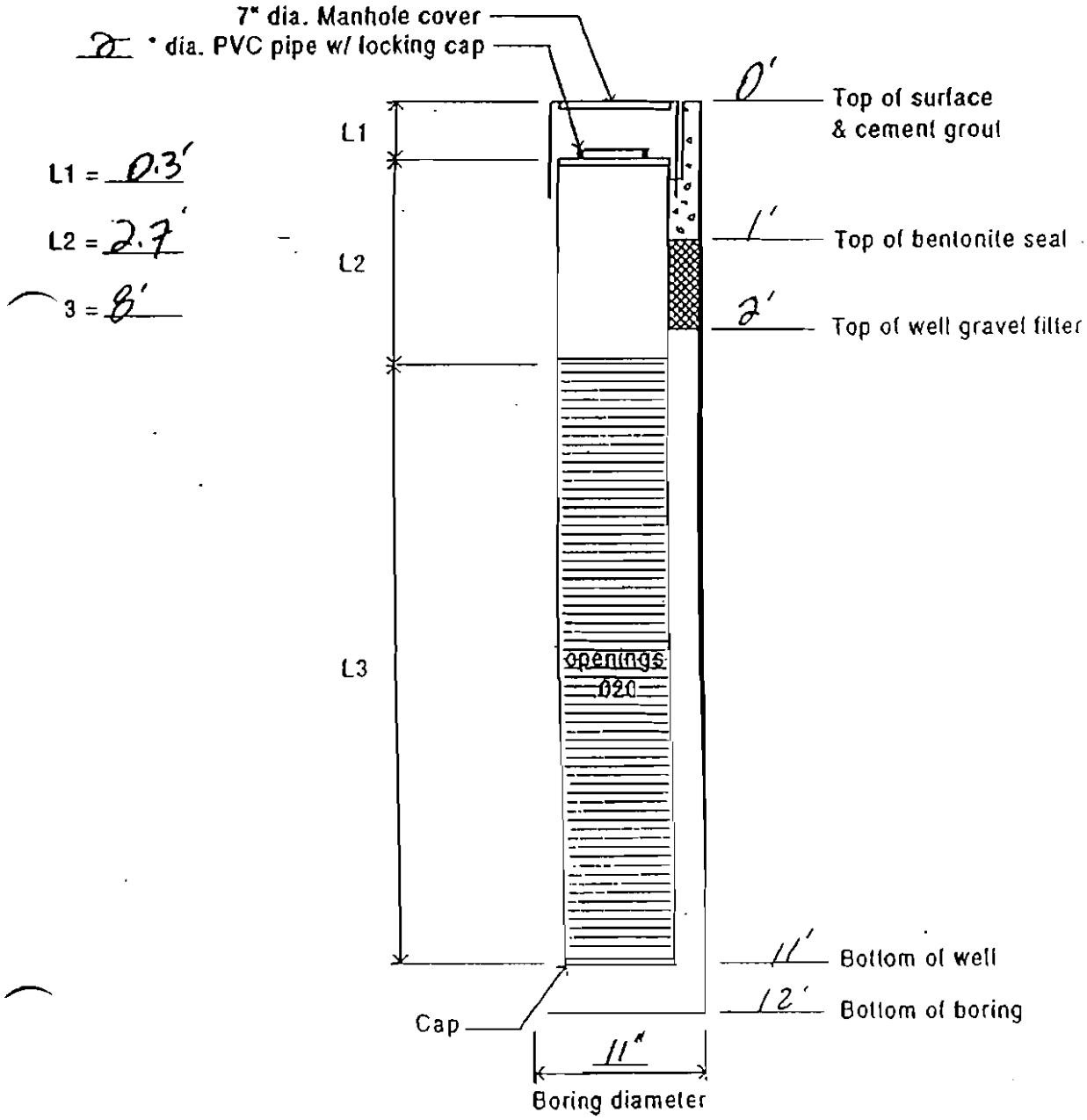
Sheet 2 of 4

PROJECT PJ - NAPORANO SITE - BERTH 63				CONTRACT NO 426-99-006
LOCATION Laid out in the field as per drawing				CONTRACTOR CRAIG
WELL NO. HW-N2	WELL TYPE Type "A" Monitor	INSPECTOR M. DUTCH	DRILLER S. BURNS	DATE 8/27/99

Well Development Report

(NOTE: WATER LEVEL READINGS FROM TOP OF PVC)

DATE 8/27/99	WATER LEVEL BEFORE 6.0'	WATER LEVEL AFTER 6.1'	TAKEN 60 MINUTES AFTER
------------------------	-----------------------------------	----------------------------------	----------------------------------



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Sheet 3 of 4

PID Model: Mini RAE

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 4 of 4

PROJECT: PN - NAPORANO SITE - Berth 63	
LOCATION: laid out in the field as per drawing	DATE: 8/27/99
BORING No: MW-N2	TOTAL No. OF SAMPLES: 2

SIGNATURE OF ALL

PRESENT AT SAMPLING

[Signature] OHL

RELINQUISHED

DATE 8/27/99

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

2 Samples taken in 2 one pt. JARS

and 2 VOA's Also:

Bottle # E205 0.5' - 1.5'

Bottle # E203 4.5' - 5.0'

Engineering Department
Construction Division
Materials Engineering Section
BORING REPORT

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PROJECT N- Former Metro Metals		NAME OF CONTRACTOR Craig		BORING NO. PA-CL-E-1		SHEET 1 OF 3	
LOCATION 1' east of PA-CL		CONTRACT NO. 426-99-006		DATE 12/3/01		SURFACE ELEV.	
CASON "O.D." "I.D."		CASING SIZE		HOLE TYPE Hand Auger		GROUND WATER LEVEL	
HAMMER # FALL		HAMMER # FALL		Date	Time	Depth	Remarks
				12/3/01	1:30 P		No water
ILLER Alan Kidas		ECTOR T. Rye					
BORG WS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE		
little lead	0				Asphalt		
					2.0'		
	2.5	Hand Auger	Fall	1	Misc Fill - Sand, Cinders, Wood, Gravel		
			Rec.	2	Same		
				3	Same		
				4	Same		
					4.0'		
	5				Bottom of Boring		

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

70

ID		PA - Former Metro Metals	
RING No.		PA-CL-E1	DATE: 12/3/01
FIELD READINGS BY: T. Kra		PID Model: 7	

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
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ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: PW - Former Metro Metals

LOCATION: $\pm 1'$ east of PA-C6

DATE: 12/3/01

RING No: PA-C6-E1

TOTAL No. OF SAMPLES: 4 + 1 Dup

NATURE OF ALL

EVENT AT SAMPLING

INQUIRED

DATE 12/3/01

RECEIVED

(SIGN)

TIME

BY (SIGN)

INQUIRED

DATE

RECEIVED

(SIGN)

TIME

BY (SIGN)

INQUIRED

DATE

RECEIVED

(SIGN)

TIME

BY LAB

REMARKS: 4 samples in 4-16oz jars & 1-~~to~~ Duplicate in 1 16oz jar
(S-2 Dup)

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

SHEET 1 OF 3

PROJECT N-Former Metro Metrol	NAME OF CONTRACTOR Craig	BORING NO. PACU-E2	SURFACE ELEV.
LOCATION 15' East of PACU	CONTRACT NO. 426-99-006	DATE 12/5/01	

BOON "O.D."	CASING SIZE "I.D."	HOLE TYPE H. Auger	GROUND WATER LEVEL			
MER # FALL	HAMMER # FALL		Date 12/5/01	Time	Depth	Remarks No water
DRILLER A. Kidas						
DIRECTOR T. Ryan						

SING WS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
Asphalt	0				
		Hand Auger	Full		1.2'
	2.5			1	Same
				2	Same
				3	Same
				4	Same
	5.0				Bottom of Boring
					4.0'

NOTES: 1 — Length recovered; 0* — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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[illegible]

ENGINEERING DEPARTMENT
SERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: PN - former Metro Metals

LOCATION: $\pm 5'$ East of PAC6

DATE: 12/5/01

RING No: PAC6-E2

TOTAL No. OF SAMPLES: 4

SIGNATURE OF ALL

AGENT AT SAMPLING

T. Rya

INQUIRED

DATE

RECEIVED

(SIGN)

T. Rya

TIME

BY (SIGN)

INQUIRED

DATE

RECEIVED

(SIGN)

TIME

BY (SIGN)

INQUIRED

DATE

RECEIVED

(SIGN)

TIME

BY LAB

REMARKS: 4 samples in 4 16oz jars

BORING REPORT

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SHEET 1 OF 3

PROJECT PN - Former Metro Metal		NAME OF CONTRACTOR Craig		BORING NO. PAC6-E3		SURFACE ELEV.	
LOCATION ± 10' East of PAC6				CONTRACT NO. 426-99-006		DATE 12/7/01	
JOB		CASING SIZE	HOLE TYPE H. Auger	GROUND WATER LEVEL			
O.D.	I.D.			Date	Time	Depth	Remarks
		HAMMER		12/7/01			No water
# FALL		# FALL					
DRILLER Al. Dollar							
DIRECTOR T. Ryan							

CASING WS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
0					Misc Fill - Gravel, Sand, Metal etc
					Asphalt
	2.5	Hard Auger	Full	1	Misc Fill - Gravel, Gravel, Metal, Wood
		↓	↓	2	Same
		↓	↓	3	Same
		↓	↓	4	Same
	5.0				Bottom of Boring

NOTES: 1 - Length recovered; 0' - Loss of Sample, T - Trap used
2 - U = undisturbed; A = auger; OER = open end rod; V = vane
3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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ENGINEERING DEPARTMENT
MARITIME ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

PROJECT: PN - Former Metro Metals
LOCATION: ±10' east of PA-C6 DATE: 12/7/01
SAMPLING No: PA-C6-E3 TOTAL No. OF SAMPLES: 4

NATURE OF ALL

EVENT AT SAMPLING

T. Ryan

PREPARED	DATE 12/7/01	RECEIVED
SIGNATURE	TIME	BY (SIGN)
PREPARED	DATE	RECEIVED
SIGNATURE	TIME	BY (SIGN)
PREPARED	DATE	RECEIVED
SIGNATURE	TIME	BY LAB

REMARKS: 4 samples in 4-16oz jars

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Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

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PROJECT PN - Former Metis Metals		NAME OF CONTRACTOR Craig		BORING NO. PACG-E3A		SHEET 1 OF 3	
LOCATION 10' East of PACG (Same location as PACG-E3)		CONTRACT NO. 426-99-006		DATE 12/11/01		SURFACE ELEV.	
CASON 3 O.D. 2 3/8 I.D.		CASING SIZE Augers		HOLE TYPE H. Auger		GROUND WATER LEVEL	
MER 40 # FALL 30		HAMMER		# FALL		Date Time Depth Remarks	
FILLER M. McErlane						12/11/01 No water encountered	
DIRECTOR T. Ryan							

CASON WS/FT.	DEPTH	SOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
augers	0				
					For Soil Strata from 0'-4' See B.H. PACG-E3
	2.5				
					4.0'
	5.0	Hand Auger	Full Rn.		
		↓			
		8-10	6'	1	Misc Fill - Sand, Gravel, Metal, Wood. (Shen & odor)
1 auger	7.5				
		32-19	5"	2	Fill - Bl C-F Sand. (fuel odor)
					Bottom of Boring
					2.5'

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used
 2 - U = undisturbed; A = auger; OER = open end rod; V = vane
 3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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PN- former Metro Metals

DATE: 12/11/01

PID Model: 14

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: PN - Former Metro Metals
 LOCATION: 10' east of PAC6 / Same location as PAC6-E3 DATE: 12/11/01
 SAMP. No: PAC6-E3A TOTAL No. OF SAMPLES: 2

SIGNATURE OF ALL

PRESENT AT SAMPLING

T. Ryan

1. REQUESTED	DATE <u>12/11/01</u>	RECEIVED
(SIGN) <i>T. Ryan</i>	TIME	BY (SIGN)
2. REQUESTED	DATE	RECEIVED
(SIGN)	TIME	BY (SIGN)
3. REQUESTED	DATE	RECEIVED
(SIGN)	TIME	BY LAB

REMARKS: 2 samples in 2-16 oz jars

TH TRT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

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PROJECT PA - Former Metro Metals		NAME OF CONTRACTOR Craig		BORING NO. PAC6-E-4	SHEET 1 OF 3
LOCATION 20' East of PAC6				CONTRACT NO. 426-99-006	SURFACE ELEV.
DRILLER M McElean		HOLE TYPE H. Auger		DATE 12/11/01	
DIRECTOR T. Ryan					

SING WS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
0	0				Asphalt
					1.0'
		Hand Auger	Full Rec		Fill - B.C. - Sand & Gravel
	2.5			1	Same
				2	Same
				3	Same
				4	Same
					4.0'
	5.0				Bottom of Boring

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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Sheet 2 of 3

PN - Former Metro Metals

RING No.

PACU-E 4

DATE:

12/11/01

FIELD READINGS BY:

T. Ryan

PID Model:

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[illegible]

THE PORT AUTHORITY OF N.Y. & N.J.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: PN-Former Metro Metals

LOCATION: $\pm 20'$ east of PAC6

DATE: 12/11/01

WING No: PAC6-E.4

TOTAL No. OF SAMPLES: 4

NATURE OF ALL

TEST AT SAMPLING

T. Ryan

ACQUIRED

DATE 12/11/01

RECEIVED

(SIGN)

T. Ryan

TIME

BY (SIGN)

ACQUIRED

DATE

RECEIVED

(SIGN)

TIME

BY (SIGN)

ACQUIRED

DATE

RECEIVED

(SIGN)

TIME

BY LAB

REMARKS: 4 samples in 4 16oz jars

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Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT PN- Metro Metals		NAME OF CONTRACTOR Craig Drilling		BORING NO. BH-PA C6 E5		SHEET 1 OF 2	
LOCATION 40' E of BH-PA C6		CONTRACT NO. 426-99-006		DATE 4/29/02		SURFACE ELEV.	
BOON 3	CASING SIZE 2 3/8" I.O.	HOLE TYPE 1	GROUND WATER LEVEL				
MEASUREMENT 140' FALL 30	HAMMER AUGER	# FALL	Date	Time	Depth	Remarks	
REMARKS A Kites			4/29/02	2^{PM}	0.5	in Asphalt Millings	
INSPECTOR D Howe			4/29/02	2⁵⁵	9.5	Groundwater S#5	

DEPTH	SPLOON BLOWS/6"	RE- COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
0	Hand Auger	Full		Asphalt Millings
1	↓	↓		
2	tapped spoon	10'	1	Mix Fill - Graders Sand, Gravel, Asphalt, Etc
3	↓	↓	2	Mix Fill - Sand, Gravel, Graders, Metal, Etc
4	↓	↓	3 ^A	Same
5	↓	↓	3 ^B	Fill - M-F Gray Brown Sand, Tr Gravel, N.S.V
6	10-14			
7	21-30	16"	4	Same
8	8-9			
9	14-19	16"	5	Same
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used
2 - U = undisturbed; A = auger; OER = open end rod; V = vane
3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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Sheet 2 of 2

PID Model: Min RBE

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Engineering Department Construction Division Materials Engineering Section BORING REPORT

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PROJECT N- Metro Metals		NAME OF CONTRACTOR Craig Drilling		BORING NO. BH-PAC6 56	SHEET 1 OF 2
LOCATION ± 30' East of BH PAC6		CONTRACT NO. Y2699-006		SURFACE ELEV.	DATE 4/30/02
POOH 3" O.D. 2 3/8" I.D.	CASING SIZE Ducos	HOLE TYPE 1	GROUND WATER LEVEL		
MER 14' # FALL 70	HAMMER	# FALL	Date	Time	Depth
LER D Cooke			4/30	8	1.8
INSPECTOR D Howe			4/30	9 ¹⁵	9.5
					Remarks in Right of Millage Groundwater 3' 5"

DEPTH FEET	DEPTH FOOT	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
1' 4"	0	Hard Auger	Full		Asphalt Millage
1' 8"		↓	↓		
Mellow		Typed spoon	12"	1	Misc Fill - Sand, Asphalt, Brick, wood, etc.
Ter			10'	2	Misc Fill - Gravel, Sand, Gravel, Metal, etc.
Bugor	5	↓	12"	3	Same
		18-51		4	Fill of F. Gray Brown Sand, Fr Gravel, Fr Silt
✓		69-64	13'		Misc Fill - Sand, Gravel, Metal, Silt, etc.
		24-29		5	Same
	10	32-40	14'		Same
					Bottom of Boring
	15				
					All Samples checked with PIP Meter
					S# 1, 2 & 5 (9-95) saved for testing
					& checked for TP Hg in field by Chem Lab
					Remaining Samps Discarded
	20				
	25				

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used

2 - U = undisturbed; A = auger; OER = open end rod; V = vane

3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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30. i: PN-Metro Metab

BORING No. BH PA C6 E6

DATE: 4/10/02

FIELD READINGS BY: D. Howe

PID Model: Mini Plate

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BORING REPORT

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

AR

PID Model: M, I, P, A, E

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THE PORT AUTHORITY OF NY & NJ

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Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

- Pdc Parts Fac			NAME OF CONTRACTOR Craig Drilling		BORING NO. BX-N7		SHEET 1 OF 3	
aid out by PA Survey					CONTRACT NO. 426-99-006		SURFACE ELEV.	
W.O.D. Dugout I.D.			CASING SIZE		HOLE TYPE L		DATE 10/2/06	
# FALL			HAMMER		GROUND WATER LEVEL			
			# FALL		Date		Time	
					10/2		9:15 AM	
					Dry		Remarks	
P. Pannell								
D Howe								
DEPTH	SPoon	RE-	SAMP.	SAMPLE DESCRIPTION AND REMARKS				
FT.	BLOWS/6"	COV'D	NO.	LINE LOCATES CHANGE OF PROFILE				
0	Hand Dugout	Full	1	Misc Fill - Gravel, Sand, Wood, Concrete, SIFER 1.5'				
				Bottom of Boring				
5				All Soil checked with PID Meter				
				5' 1" Sample for Test				
				Remaining Soil Discarded				
10								
15								
20								
25								

NOTES: 1 - Length recovered; 0' - Loss of Sample, T - Trap used

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**ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS**

Sheet 2 of 7

PID Model: M, n, P, B, θ

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

JECT: PN- Pdc Ports Fee
 ATION: As laid out by PA Survey DATE: 10/2/00
 NG No: BH- N-7 TOTAL No. OF SAMPLES: 1 Soil

ATURE OF ALL
 ENT AT SAMPLING

QUISHED	DATE <u>10/2/00</u>	RECEIVED
(SIGN)	TIME	BY (SIGN)
QUISHED	DATE	RECEIVED
(SIGN)	TIME	BY (SIGN)
QUISHED	DATE	RECEIVED
(SIGN)	TIME	BY (SIGN)

MARKS:

1 Soil Sample in 16oz jar

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT JAPORANO SITE - BERTH 63		NAME OF CONTRACTOR CEAIG		BORING NO. BH N5B		SHEET 1 OF 1	
LOCATION 11' East from BH N5A		CONTRACT NO. 426-99-067		DATE 8/27/99		SURFACE ELEV.	
Casing Size		Hole Type		GROUND WATER LEVEL			
HAMMER				Date	Time	Depth	Remarks
# FALL		# FALL					
SUPERVISOR S. Burns							
DIRECTOR M. Oudeh							

DEPTH DWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
	0	Hand Auger ↓	Full ↓		Misc. Fill grey sand, crushed Rock, metal, etc
					Bottom of Boring → 3.0'
	5				Note: Obstruction found at ± 3.0', Relocated Boring Hole.
	10				
	15				
	20				
	25				

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Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT NAPORAND SITE-DEPTH 63		NAME OF CONTRACTOR CRAIG		BORING NO. BH NSC		SHEET 1 OF 1	
LOCATION 15' SATY FROM BH-NSB		CONTRACT NO. 426-99-007		DATE 8/27/99		SURFACE ELEV.	
C.O.D.		C.A.S.I.N.G. SIZE		HOLE TYPE		GROUND WATER LEVEL	
HAMMER		HAMMER		Date		Time	
# FALL		# FALL		Depth		Remarks	
SUPERVISOR S. BURNS							
INSPECTOR M. OUDEH							

BORING DEPTH	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
0	Hand Auger	Well			Fix full guy-be Sand, crushed Rock, Metal, etc.
5					Bottom of BORING
10					
15					
20					
25					

NOTE: Obstruction found at 13.5'
Relocated boring hole.

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Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT N- NAPORANO SITE- Berth 63		NAME OF CONTRACTOR CRAIG		BORING NO. BH USA		SHEET 1 OF 1	
LOCATION LAID OUT IN TIE FIELD AS PER DWG.		CONTRACT NO. 426-99-007		DATE 8/25/99			
Casing Size "O.D." "I.D."		Hole Type		GROUND WATER LEVEL			
HAMMER				Date	Time	Depth	Remarks
# FALL		# FALL					
S. Burns							
M. Oudeh							

DEPTH IN FEET	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
	0	Hand Auger	Full		Asphalt pavement
		↓	↓		Misc. fill sand, Metal, crushed rock, wood
	5				Bottom of boring
	10				
	15				
	20				
	25				

NOTE: Obstruction found at ± 3.1'
relocated boring hole.

BORING REPORT

BORING REPORT

PROJECT		NAME OF CONTRACTOR		BORING NO.	SHEET 1 OF 2
LOCATION					SURFACE ELEV.
SPHON		CASING SIZE	HOLE TYPE	CONTRACT NO.	DATE
PN-Metro Metek		Cray Drilling		5200-66E8	4/30/02
73' West of B4 PACG-E6				42699-006	4/30/02
SPOON		CASING SIZE	HOLE TYPE	GROUND WATER LEVEL	
3 "O.D. 2 3/4 "I.D.		Auger	1	Date	Time
Buto		HAMMER		Depth	Remarks
140 # FALL 30		# FALL		4/30/02	11 ⁴⁵
D Cooke				4/30	12 ⁰⁵
INSPECTOR					
D Hux					
USING BLWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
Hand	0	Hand Auger	F(1)		Asphalt Millings
1st ↓		↓	↓		
Hollow		Tipped Spoon	11'	1	Misc Fill Asphalt, Gravel, Sand, wood, etc
Tom		↓	10"	2	Same
Auger	5	↓	14'	3	Same
↓		16-31		4	oil odor
		31-36	18'		Fill M-P Gray Brown Sand, IV Gravel, IV Silt
		8-10		5	
	10	14-16	18'		Same
					Bottom of Boring
	15				All Samples checked with PID Meter
					s# 1, 2, 4 & 5 (8.5-9) Saved for Testion
					& checked for TPH w/field by char lab
					Remainng Samp Discarded
	20				

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane

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Engineering Department
Construction Division
Materials Engineering Section
BORING REPORT

SHEET 1 OF 3

PROJECT W-Former Metro Metals		NAME OF CONTRACTOR Craig		BORING NO. PA-C7-S-1		SURFACE ELEV.	
LOCATION 1 S. of PA-C7				CONTRACT NO. 424-99-006		DATE 12/4/01	
IN "O.D."		CASING SIZE "I.D."		HOLE TYPE H. Auger		GROUND WATER LEVEL	
# FALL		HAMMER # FALL		Date	Time	Depth	Remarks
				12/4/01	11:45A		No water
OWNER Q Kids							
DIRECTOR T. Ryan							
BORING NO./FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE		
0					MISC - Gravel, Sand, Metal, Conc.		
1					Asphalt		
		Hand Auger	Full Rec		Misc Fill - Sand, Cinders, Gravel, Metal, Wood		
2.5				1	Same		
				2	Same		
				3	Fill - Bk M-F Sand, to Silt, to G.		
				4	Same		
5.0					Bottom of Boring		

NOTES: 1 — Length recovered; 0* — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

PID Model: 14

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
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THE PORT AUTHORITY OF N.Y. & N.J.

ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

103

Sheet 3 of 3

OBJECT: *PN - Former Metro Metals*

LOCATION: *± 1' S of PA-C7*

DATE: *12/4/01*

URING No: *PA-C7*

TOTAL No. OF SAMPLES: *4*

SIGNATURE OF ALL

PRESENT AT SAMPLING

T. Ryan

ELINQUISHED

DATE *12/4/01*

RECEIVED

(SIGN)

T. Ryan

TIME

BY (SIGN)

INQUISHED

DATE

RECEIVED

Y (SIGN)

TIME

BY (SIGN)

INQUISHED

DATE

RECEIVED

Y (SIGN)

TIME

BY LAB

EX. KS:

4 samples in 4 16 oz jars

THE PORT AUTHORITY OF NY & NJ

**Engineering Department
Construction Division
Materials Engineering Section
BORING REPORT**

PROJECT		NAME OF CONTRACTOR		BORING NO.		SHEET 1 OF 3	
LOCATION		CASING SIZE		HOLE TYPE		SURFACE ELEV.	
DATE		CONTRACT NO.		DATE		DATE	
A1 - Former Metro Metals		Craig		PA-C7-E-1			
1' W. of PA-C7				426-99-006		12/4/01	
ER		HAMMER		GROUND WATER LEVEL		Remarks	
# FALL		# FALL		Date		Time	
				12/4/01		8:05 A	
Alan Kider						No water encountered	
T. Ryan							
DEPTH		SPOON BLOWS/6"		RE- COV'D		SAMP. NO.	
0		0		0		0	
1.0		Harder		Full		Misc. Fill - Br Silt, Sand, Metal, Wood	
2.0		Harder		Full		ASPHALT	
3.0		Harder		Full		Misc. Fill - Sand, Gravel, Wood, Metal, Cinders	
4.0		Harder		Full		Same	
5.0		Harder		Full		Same	
6.0		Harder		Full		Full - Br M-F Sand, to Silt, to Gr.	
7.0		Harder		Full		Sand	
8.0		Harder		Full			
9.0		Harder		Full			
10.0		Harder		Full			
11.0		Harder		Full			
12.0		Harder		Full			
13.0		Harder		Full			
14.0		Harder		Full			
15.0		Harder		Full			
16.0		Harder		Full			
17.0		Harder		Full			
18.0		Harder		Full			
19.0		Harder		Full			
20.0		Harder		Full			
21.0		Harder		Full			
22.0		Harder		Full			
23.0		Harder		Full			
24.0		Harder		Full			
25.0		Harder		Full			
26.0		Harder		Full			
27.0		Harder		Full			
28.0		Harder		Full			
29.0		Harder		Full			
30.0		Harder		Full			
31.0		Harder		Full			
32.0		Harder		Full			
33.0		Harder		Full			
34.0		Harder		Full			
35.0		Harder		Full			
36.0		Harder		Full			
37.0		Harder		Full			
38.0		Harder		Full			
39.0		Harder		Full			
40.0		Harder		Full			
41.0		Harder		Full			
42.0		Harder		Full			
43.0		Harder		Full			
44.0		Harder		Full			
45.0		Harder		Full			
46.0		Harder		Full			
47.0		Harder		Full			
48.0		Harder		Full			
49.0		Harder		Full			
50.0		Harder		Full			
51.0		Harder		Full			
52.0		Harder		Full			
53.0		Harder		Full			
54.0		Harder		Full			
55.0		Harder		Full			
56.0		Harder		Full			
57.0		Harder		Full			
58.0		Harder		Full			
59.0		Harder		Full			
60.0		Harder		Full			
61.0		Harder		Full			
62.0		Harder		Full			
63.0		Harder		Full			
64.0		Harder		Full			
65.0		Harder					

NOTES: 1 — Length recovered; 0* — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane

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Sheet 2 of 3

PIO Model: 14

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THE PORT AUTHORITY OF N.Y. & N.J.

ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: PN - Metro Metals (Former)

LOCATION: ± 1' ^W of PA-C7

DATE: 12/4/01

TESTING No: PA-C7 - ~~PA-C7~~ E1

TOTAL No. OF SAMPLES: 4

SIGNATURE OF ALL

PRESENT AT SAMPLING

T. Ryan

INQUIRED

DATE 12/4/01

RECEIVED

SIGN

T. Ryan

TIME

BY (SIGN)

INQUIRED

DATE

RECEIVED

SIGN

TIME

BY (SIGN)

INQUIRED

DATE

RECEIVED

SIGN

TIME

BY LAB

REMARKS: 4 samples in 4 16 oz jars

SHEET 1 OF 3

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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Sheet 2 of 3

PID Model: 14

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ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: PN - Former Metro Metals

LOCATION: \pm 1 W of PA-C7

DATE: 12/4/01

RING No: PA-C7 W-1

TOTAL No. OF SAMPLES: 4

NATURE OF ALL

SENT AT SAMPLING

ACQUISHED

DATE

RECEIVED

SIGN)

TIME

BY (SIGN)

ACQUISHED

DATE

RECEIVED

SIGN)

TIME

BY (SIGN)

ACQUISHED

DATE

RECEIVED

SIGN)

TIME

BY LAB

REMARKS: 4 samples in 4-16oz jars

• BORING REPORT

PROJECT		NAME OF CONTRACTOR		BORING NO.		SHEET 1 OF 5	
ACTION				CONTRACT NO.		SURFACE ELEV.	
LOCATION		CASING SIZE		HOLE TYPE		DATE	
O.D.		I.D.		HAMMER		REMARKS	
# FALL		# FALL		Date		Time	
WATER		WATER		Depth		Remarks	
ELECTOR							
Former Metro Metals		Craig		BH-MW-N1-N1			
± 1' No. of MW-N1				426-99-006		12/4/01	
H. Auger				12/4/01		1:55p	
				1.0'		Perched, seeping under pavement	
A. Kides							
T. Ryan							
SNG		SPOON		RE-		SAMP.	
NS/FT.		BLOWS/6"		COV'D		NO.	
DEPTH						SAMPLE DESCRIPTION AND REMARKS	
						LINE LOCATES CHANGE OF PROFILE	
0		Hand		Full		ASPHALT	
		Auger		Rice		Fill - Br M - F Sand, lit Gravel	
2.5						Same	
						Fill - Br M - F Sand, to Silt	
						Same	
						Same	
						Same	
5.0						Bottom of Boring	
						4.0'	

NOTES: 1 — Length recovered; 0* — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

///

Sheet 2 of 3

PID Model: 14

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THE PORT AUTHORITY OF N.Y. & N.J.

ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: PN - Former Metr. Metals

LOCATION: $\pm 1'$ North of MW-N1

DATE: 12/4/01

DRILLING No: BH-MW-N1-N1

TOTAL No. OF SAMPLES: 4

NATURE OF ALL

EVENT AT SAMPLING

T. Rye

ACQUIRED

DATE 12/4/01

RECEIVED

(SIGN)

T. Rye

TIME

BY (SIGN)

ACQUIRED

DATE

RECEIVED

(SIGN)

TIME

BY (SIGN)

ACQUIRED

DATE

RECEIVED

TIME

BY LAB

REMARKS:

4 samples in 4-16 oz jars

**Engineering Department
Construction Division
Materials Engineering Section
BORING REPORT**

PROJECT		NAME OF CONTRACTOR		BORING NO.	SHEET / OF	
LOCATION		CASING SIZE	HOLE TYPE	MWNI - W1	SURFACE ELEV.	
DESCRIPTION		"O.D."	"I.D."	CONTRACT NO.	DATE	
1' W of MW-N1 <td></td> <td>H Auger <td>426-99-006 <td>12/4/01 </td></td></td>			H Auger <td>426-99-006 <td>12/4/01 </td></td>	426-99-006 <td>12/4/01 </td>	12/4/01	
		GROUND WATER LEVEL				
		Date	Time	Depth	Remarks	
		12/4/01	12:15 P.	1.0'	Perched water seeping in under pavement.	
A. Kidas						
T. Ryan						
SNG ...S/FT.		DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
Then	0					Asphalt 0.9'
and			Hard	Full		Fill-B m-F Sand, lit G.
			Auger	Rec		Fill-B m-F Sand, to Silt
	2.5				1	Same
					2	Same
					3	Same
					4	Same
	5.0					Bottom of Boring 4.0'

NOTES: 1 — Length recovered; 0* — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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Sheet 2 of 3

PID Model: 14

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: PN - Former Metro Metals

LOCATION: $\pm 1'$ West of MW-N1

DATE: 12/4/01

RING No. BH-MW-N1-W1

TOTAL No. OF SAMPLES: 4

NATURE OF ALL

EVENT AT SAMPLING

T. Ryan

ACQUISHED

DATE 12/4/01

RECEIVED

(SIGN)

T. Ryan

TIME

BY (SIGN)

ACQUISHED

DATE

RECEIVED

(SIGN)

TIME

BY (SIGN)

ACQUISHED

DATE

RECEIVED

(SIGN)

TIME

BY LAB

REMARKS:

4 samples in 4 - 16 oz jars

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

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SHEET 1 OF 3

PROJECT 1 - Former Metro Metals	NAME OF CONTRACTOR Ciang	BORING NO. BH-MW-N1-S-1	SURFACE ELEV. DATE 12/4/01
LOCATION ± 1' South of MW-N1		CONTRACT NO. 426-99-006	

DATE 12/4/01	TIME 2:35 P	DEPTH 1.0'	REMARKS Perched, seeping under pavement
GROUND WATER LEVEL			

DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
0				ASPHALT 0.9'
	Hand Auger	Full Rec		Fill - B ₁ M-F Sand, lit Gravel
2.5			1	Same
			2	Same
			3	Same
			4	Same
5.0				Bottom of Boring 4.0'

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used
2 - U = undisturbed; A = auger; OER = open end rod; V = vane
3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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PID Model: 14

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

SUBJECT: PN - Former Metro Metals
LOCATION: \pm 1' South of MW-N1 **DATE:** 12/4/01
RING No: BH-MW N1-S1 **TOTAL No. OF SAMPLES:** 4

NATURE OF ALL

EVENT AT SAMPLING

T. Ryan

DISPATCHED	DATE 12/4/01	RECEIVED
(SIGN) <i>T. Ryan</i>	TIME	BY (SIGN)
DISPATCHED	DATE	RECEIVED
(SIGN)	TIME	BY (SIGN)
DISPATCHED	DATE	RECEIVED
(SIGN)	TIME	BY LAB

REMARKS: 4 samples in 4-16 oz jars

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

SHEET 1 OF 3

SURFACE ELEV.

JECT N- Former Metro Mats

NAME OF CONTRACTOR

Cang

BORING NO. B. H. -
MWN1-E1

CONTRACT NO.

426-93-006

DATE

12/4/01

ATION IE of MWN1

Casing Size H. Auger

HOLE TYPE

HAMMER

FALL

FALL

ILLER A. Kider

ECTOR T. Ryan

GROUND WATER LEVEL

Date

Time

Depth

Remarks

12/4/01

1:25P

1.0'

Perched water under pavement

SAMP. NO.

SAMPLE DESCRIPTION AND REMARKS
LINE LOCATES CHANGE OF PROFILE

DEPTH

SPOON BLOWS/6'

RE- COV'D

Hand Auger

Full Rec.

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

Same

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
 2 — U = undisturbed; A = auger; OER = open end rod; V = vane
 3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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Sheet 2 of 3

PID Model: 14

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: <i>PN - former Metro Metals</i>	
LOCATION: <i>± 1' E. of MW N1 -</i>	DATE: <i>12/4/01</i>
LOG No. <i>BH-MW N1 - E1</i>	TOTAL No. OF SAMPLES: <i>4</i>

NATURE OF ALL

EVENT AT SAMPLING

T. Ryan

ACQUIRED	DATE <i>12/4/01</i>	RECEIVED
SIGN <i>T. Ryan</i>	TIME	BY (SIGN)
ACQUIRED	DATE	RECEIVED
SIGN	TIME	BY (SIGN)
ACQUIRED	DATE	RECEIVED
SIGN	TIME	BY LAB

REMARKS: *4 samples in 4-16 oz jars*

123

BORING REPORT

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

**ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS**

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PID Model: 14

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ENGINEERING DEPARTMENT
 MATERIALS ENGINEERING DIVISION
 CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: PN-Former Metro Metals

LOCATION: ± 1 North of MWCS

DATE: 12/5/01

LOGGING No: BH-MWCS-N1

TOTAL No. OF SAMPLES: 4

SIGNATURE OF ALL

AGENTS AT SAMPLING

T. Ryan

INQUIRED

DATE 12/5/01

RECEIVED

(SIGN)

TIME

BY (SIGN)

T. Ryan

INQUIRED

DATE

RECEIVED

(SIGN)

TIME

BY (SIGN)

INQUIRED

DATE

RECEIVED

(SIGN)

TIME

BY LAB

AA.

4 samples in 4 16 oz jars

597
80

PORT AUTHORITY OF NY & NJ

125

Engineering Department
Construction Division
Materials Engineering Section
BORING REPORT

PROJECT: PH - Former Metro Metals		NAME OF CONTRACTOR: Craig	BORING NO.: BH-MWCS-W1	SHEET 1 OF 3
LOCATION: ± 1' West of MW-C5		CONTRACT NO.: 420-99-006	DATE: 12/5/01	SURFACE ELEV.
POOH	CASING SIZE	HOLE TYPE	GROUND WATER LEVEL	
"O.D."	"I.D."	H. Auger	Date	Time
HAMMER	HAMMER		12/5/01	
# FALL	# FALL			Remarks: No water
DRILLER: A. Kidas				
SPECTOR: T. Ryan				

CASING BLOWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
	0				Misc fill - sand, gravel, cinders, wood, cone 0.4'
					ASPHALT 1.1'
		H. Auger ↓	Full ↓		Misc fill - cinders, sand, gravel, wood etc
	2.5	Hand Auger ↓	Full ↓	1	Same
				2	Fill - Rd Br M-F Sand, lid Gravel, to Silt
				3	Fill - Rd Br M-F Sand, to Silt, to Gr
				4	Same
	5.0				Bottom of Boring ↑ 4.0'

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used
2 - U = undisturbed; A = auger; OER = open end rod; V = vane
3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

RI : PN - Former Metis Match

DRING No. BH-MWCS-WI

DATE: 12/5/01

FIELD READINGS BY: T. Kram

PID Model: 14

[illegible]

THE PORT AUTHORITY OF N.Y. & N.J.

ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: *PN-Former Metho Metals*
 LOCATION: *± 1' West of MWCS-~~W1~~* DATE: *12/5/01*
 SING No: *BH-MWCS-W1* TOTAL No. OF SAMPLES: *4*

NATURE OF ALL

POINT AT SAMPLING

T. Ryan

ACQUISISHED

DATE *12/5/01*

RECEIVED

SIGN

T. Ryan

TIME

BY (SIGN)

ACQUISISHED

DATE

RECEIVED

SIGN

TIME

BY (SIGN)

ACQUISISHED

DATE

RECEIVED

SIGN

TIME

BY LAB

REMARKS

4 samples in 4 16oz jars.

Engineering Department
Construction Division
Materials Engineering Section
BORING REPORT

SHEET 1 OF 3	
NAME OF CONTRACTOR Craig	BORING NO. BH-MWCS-51
LOCATION ± 1' South of MWCS	CONTRACT NO. 426-99-006
DATE 12/5/01	SURFACE ELEV.
Casing Size H Auger	Hole Type H Auger
Hammer Hammer	Ground Water Level Date: 12/5/01 Time: Depth: Remarks: No water
# FALL 	# FALL
OPERATOR A. Kidas	
DIRECTOR T. Ryan	
CASING DEPTH 0	SPOON BLOWS/6"
RE- COV'D 	SAMP. NO.
*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE Min Fill - Gravel, Sand, Metal etc 0.4' ASPHALT 1.2' Min Fill - Gravel, Gr, Sand, Glass, Metal etc Hand Auger Full Rec 2.5' 1 Same 2 Same 3 Fill - Br M - F Sand, & Silt. 4 4.0' Bottom of Boring	
5.0	

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
 2 — U = undisturbed; A = auger; OER = open end rod; V = vane
 3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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JL PN-Former Metro Match	
WING No. BH-MWCS-S1	DATE: 12/5/01
FIELD READINGS BY: T. Rana	PID Model: 14

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ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: *PN - Finmer Metro Metals*

LOCATION: *± 1' South of MWCS*

DATE: *12/5/01*

WING No: *BH-MWCS-S1*

TOTAL No. OF SAMPLES: *4*

SIGNATURE OF ALL

SENT AT SAMPLING

T. Ryan

ACQUISITION

DATE *12/5/01* RECEIVED

SIGNATURE

T. Ryan

TIME

BY (SIGN)

ACQUISITION

DATE

RECEIVED

SIGNATURE

TIME

BY (SIGN)

ACQUISITION

DATE

RECEIVED

SIGNATURE

TIME

BY LAB

REMARKS:

4 samples in 4-16 oz jars

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BORING REPORT

BORING REPORT

[illegible]

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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Sheet 2 of 3

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: PN - Former Metro Metals

LOCATION: ± 1' East of MWCS

DATE: 12/5/01

RING No: BH-MWCS-E1

TOTAL No. OF SAMPLES: 4

NATURE OF ALL

SENT AT SAMPLING

T. Ryan

DISPATCHED

DATE: 12/5/01

RECEIVED

(SIGN)

T. Ryan

TIME

BY (SIGN)

DISPATCHED

DATE

RECEIVED

(SIGN)

TIME

BY (SIGN)

DISPATCHED

DATE

RECEIVED

(SIGN)

TIME

BY LAB

REMARKS:

4 samples in 4-16oz jars

BORING REPORT

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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Sheet 2 of 3

PID Model: *M. n. Rac*

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ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

OBJECT: Port Newark Metro Metals Site

LOCATION: ± 60.0' E of BH-PA-C-6 E-7

DATE: 5/16/02

Boring No: BH-PA-C-6 E-9

TOTAL No. OF SAMPLES: 2 soil

SIGNATURE OF ALL

PRESENT AT SAMPLING

ACQUISHED

DATE 5/16/02

RECEIVED

(SIGN)

TIME 3 PM

BY (SIGN)

ACQUISHED

DATE

RECEIVED

(SIGN)

TIME

BY (SIGN)

ACQUISHED

DATE

RECEIVED

TIME

BY LAB

REMARKS:

2 Soil Samples in 1 bag for each

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

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PROJECT Newark Metro Metals Site		NAME OF CONTRACTOR Crang		BORING NO. BH PACB E-#10	SHEET 1 OF 2
LOCATION 140.0' E of BH PACB E-8		CONTRACT NO. 426-99-006		DATE 5/16/02	
Casing Size 2 3/4" I.D.		Hole Type Auger		GROUND WATER LEVEL	
ER AUTO 140' FALL 30'		HAMMER		Date 5/16/02	Time AM
Operator D. Cooke		Inspector H. Koss		Depth ± 9.0'	Remarks In S-5
DEPTH	SPoon BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE	
0	Hand Auger	Full		Fill - Crushed Asphalt	
1			1	Crushed Asphalt, metal pieces & frags FILL	
2			2	SAME FILL 4.0'	
3			3	Light Brown, c.f. SAND, little c.f. Gravel & silt	
4	34.36	24	4	SAME	
5	26.29				
6	8.10	24	5	SAME	
7	11.11				
10				10.0'	
				Bottom of boring	
<p>All Samples Checked w/ PID Meter Samples 3 & 4 NOT Saved Groundwater in S-5 @ ± 9.0' (± 8.5' - 9.0' Saved in S-5)</p>					

NOTES: 1 - Length recovered; 0' - Loss of Sample, T - Trap used
 2 - U = undisturbed; A = auger; OER = open end rod; V = vane
 3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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**ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS**

Sheet 2 of 3

PID Model: Mini Race

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ENGINEERING DEPARTMENT
 MATERIALS ENGINEERING DIVISION
 CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

PROJECT: Port Newark Metro Metals Site

LOCATION: \pm 40.0' E of BH-PA-C-6 E-8

DATE: 5/16/02

BORING No: BH-PA-C-6 E-10

TOTAL No. OF SAMPLES: 3 soil

SIGNATURE OF ALL

SENT AT SAMPLING

INQUIRED

DATE 5/16/02

RECEIVED

Y (SIGN)

TIME 3^{PM}

BY (SIGN)

INQUIRED

DATE

RECEIVED

Y (SIGN)

TIME

BY (SIGN)

INQUIRED

DATE

RECEIVED

Y (SIGN)

TIME

BY LAB

EM. 3: 3 soil samples, each in one 16oz. jar

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THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

SHEET 1 OF 3

SURFACE ELEV.

DATE

5/16/02

CONTRACT NO.

426-99-006

BORING NO.

BH-PA-C-6 E-10

NAME OF CONTRACTOR

Craig

LOCATION

± 40.0' E of BH-PA-C-6 E-9

CT

Newark Metro Metals Site

DATE

5/16/02

DR

AVTD

10 # FALL 30

DR

D Cooke

CTOR

H. Koss

CASING SIZE

Augers

HOLE TYPE

I

HAMMER

FALL

GROUND WATER LEVEL

Date

Time

Depth

Remarks

5/16/02

PM

± 9.5'

In S-5

ING

DEPTH

SPOON

BLOWS/6"

RE-

COV'D

SAMP.

NO.

SAMPLE DESCRIPTION AND REMARKS

LINE LOCATES CHANGE OF PROFILE

FILL - Crushed Asphalt & Metal Fragments

1

SAME

2

Light Brown, c-f SAND, little Silt, tr. f Gravel

3

Brown, c-f SAND, little c-f Gravel, tr Silt

4

SAME, tr. c-f Gravel

5

SAME

Bottom of boring

All Samples Checked w/ PID Meter

Samples 3 & 4 NOT Saved

Groundwater in S-5 @ ± 9.5'

(± 9.0' - 9.5' Saved)

NOTES: 1 - Length recovered; 0 - Loss of Sample, T - Trap used

2 - U = undisturbed; A = auger; OER = open end rod; V = vane

3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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**ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS**

Sheet 2 of 3

PID Model: Min. Rev.

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

PROJECT: Port Newark Metro Metals Site

LOCATION: $\pm 40.0'$ E of BH-PA C-6 E-9

DATE: 5/16/02

DRILLING No: BH-PA C-6 E-10

TOTAL No. OF SAMPLES: 3 soil

SIGNATURE OF ALL

SENT AT SAMPLING

Howard R. Koss

INQUIRED

DATE 5/16/02

RECEIVED

BY (SIGN)

Howard R. Koss

TIME 3 PM

BY (SIGN)

INQUIRED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

INQUIRED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

3 Soil samples for 1 bag for test

THE PORT AUTHORITY OF NY & NJ

Engineering Department Construction Division Materials Engineering Section BORING REPORT

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SHEET 1 OF 3

PROJECT PA-Former Metro		NAME OF CONTRACTOR Craig		BORING NO. PA-C6-N-1		SURFACE ELEV.	
LOCATION 1' North of PA-C6		CONTRACT NO. 426-99-006		DATE 12/3/01			
Casing Size "O.D." "I.D."		HOLE TYPE H. Auger		GROUND WATER LEVEL			
HAMMER # FALL		# FALL		Date	Time	Depth	Remarks
				12/3/01	2:10 P		No water encountered
OPERATOR Alan Kidas		RECTOR T Ryan					
BORING WS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE		
0					Asphalt		
2.5'		Hand Auger	Full Rec.	1	Mine Fill - Sand, Gravel, Gravel		
				2	Same		
				3	Same		
				4	Same		
5					Bottom of Boring		

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used

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ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

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Sheet 2 of 3

PID Model: 7

[illegible]

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: *PN - Former Metro Metals*

LOCATION: *± 1' North of PA-C60* DATE: *12/3/01*

DRAWING No: *PA-C6-N-1* TOTAL No. OF SAMPLES: *4 + 1 Dup*

SIGNATURE OF ALL
WITNESSES AT SAMPLING *T. Ryan*

1. UNWITNESSED	DATE	RECEIVED
(SIGN)	TIME	BY (SIGN)
2. UNWITNESSED	DATE	RECEIVED
(SIGN)	TIME	BY (SIGN)
3. UNWITNESSED	DATE	RECEIVED
(SIGN)	TIME	BY LAB

REMARKS: *4 samples in 4-16oz jars + 1 Dup in 1 vial jar (S-1)*

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BORING REPORT

SHEET 1	OF 3
SURFACE ELEV.	
DATE 12/5/01	

3 — Log d Downloaded from WWW.FMC.GOV on Tuesday, May 22, 2018 etc.

**ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS**

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Sheet 2 of 3

ING No. PA-CL- N-2

DATE: 12/5/01

D READINGS BY: T. Khan

PID Model: 14

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
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ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: PN - Former Metro Metals

LOCATION: ± 5' North of PA-C6

DATE: 12/5/01

ING No: PA-C6-N2

TOTAL No. OF SAMPLES: ~~2~~ 1

NATURE OF ALL

TEST AT SAMPLING

QUISHED

DATE 12/5/01

RECEIVED

SIGN)

TIME

BY (SIGN)

QUISHED

DATE

RECEIVED

SIGN)

TIME

BY (SIGN)

QUISHED

DATE

RECEIVED

SIGN)

TIME

BY LAB

REMARKS:

1 sample in 1-16oz jar

**Engineering Department
Construction Division
Materials Engineering Section**

BORING REPORT.

FORMER METRO METALS				NAME OF CONTRACTOR		BORING NO.		SHEET 1 OF 3	
± 10' North of PACG				CRAG		PACG-N3		SURFACE ELEV.	
# FALL				# FALL		CONTRACT NO.		DATE	
# FALL				# FALL		426-99-006		12/7/01	
O.D.		I.D.		CASING SIZE		HOLE TYPE		GROUND WATER LEVEL	
# FALL		# FALL		HAMMER		H. Auger		Date Time Depth Remarks	
# FALL		# FALL		HAMMER		H. Auger		12/7/01 No water	
Alan Kidas				T. Ryan					
G FT.		DEPTH		SPOON BLOWS/6"		RE-COV'D		SAMP. NO.	
0		0						*SAMPLE DESCRIPTION AND REMARKS	
1		1						LINE LOCATES CHANGE OF PROFILE	
2.0		2.0		H. Auger		Full		1	
2.5		2.5						Asphalt	
5.0		5.0						Mix Fill - Cinders, Gr., Glass, Wood	
								Bottom of Boring	

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used

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Sheet 2 of 3

PID Model: 14

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

JECT: PN - Former Metro Metals

ION: $\pm 10'$ North of PAC6

DATE: 12/7/01

NG No: PAC6-N3

TOTAL No. OF SAMPLES: 1

NATURE OF ALL

IT AT SAMPLING

T. Ryan

ISHED

DATE 12/7/01

RECEIVED

IGN)

T. Ryan

TIME

BY (SIGN)

ISHED

DATE

RECEIVED

IGN)

TIME

BY (SIGN)

ISHED

DATE

RECEIVED

IGN)

TIME

BY LAB

KS:

1 sample in 1-16 on jar

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

SHEET 1 OF 3

PROJECT #N- Former Metro Met. Site	NAME OF CONTRACTOR Cruz	BORING NO. PA-C6-W1	SURFACE ELEV. 1
---------------------------------------	----------------------------	------------------------	--------------------

LOCATION 1' West of PA-C6	CONTRACT NO. 426-99-006	DATE 12/3/01
------------------------------	----------------------------	-----------------

Casing Size O.D. I.D. Hole Type H. Auger Hammer # FALL Driller Al Kidos Director T. Ryan	GROUND WATER LEVEL <table border="1"> <tr> <th>Date</th> <th>Time</th> <th>Depth</th> <th>Remarks</th> </tr> <tr> <td>12/3/01</td> <td>11:45 A</td> <td></td> <td>No water</td> </tr> </table>	Date	Time	Depth	Remarks	12/3/01	11:45 A		No water
Date	Time	Depth	Remarks						
12/3/01	11:45 A		No water						

CASING WS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
0.1'					2" M. Sand & METAL
					Asphalt
					2.0'
2.5'	Hand Auger	Full Rec	1	1	Misc Fill - Sed, Cinders, Wood, Gravel
			2	2	Same
			3	3	Same
			4	4	Same
					4.0'
5'					Bottom of Boring

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
 2 — U = undisturbed; A = auger; OER = open end rod; V = vane
 3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

**ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS:**

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Sheet 2 of 3

WRING No. PA-C6-W1

DATE: 12/3/01

FIELD READINGS BY: T. Shea

PID Model: 7

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: *PA - Former Metro Metals*

LOCATION: *± 1' West of PA-C6*

DATE: *12/3/07*

WING No: *PA-C6-W-1*

TOTAL No. OF SAMPLES: *4 + 1 Dup*

SIGNATURE OF ALL

PERSONS PRESENT AT SAMPLING

T.B.

INITIALS

DATE *12/3/07*

RECEIVED

(SIGN)

T.B.

TIME

BY (SIGN)

INITIALS

DATE

RECEIVED

(SIGN)

TIME

BY (SIGN)

INITIALS

DATE

RECEIVED

(SIGN)

TIME

BY LAB

REMARKS:

*4 samples in 4-16oz jars + 1 duplicate sample of
S-3 in 10oz jar*

BORING REPORT

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ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: PN-Former Metro Metals

LOCATION: \pm 5' West of PA-CL6

DATE: 12/5/01

RING No: PAC6-W2

TOTAL No. OF SAMPLES: 4

SIGNATURE OF ALL

SENT AT SAMPLING

T. Ryan

INQUIRED

DATE 12/5/01

RECEIVED

(SIGN)

T. Ryan

TIME

BY (SIGN)

INQUIRED

DATE

RECEIVED

(SIGN)

TIME

BY (SIGN)

INQUIRED

DATE

RECEIVED

(SIGN)

TIME

BY LAB

REMARKS:

4 samples in 4 16 oz jars

THE CITY AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

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SHEET 1 OF 3

FORMER METRO METALS	NAME OF CONTRACTOR Craig	BORING NO. PAC6-W3	SURFACE ELEV.
± 10' West of PAC6		CONTRACT NO. 426-99-006	DATE 12/7/01

CASING SIZE	HOLE TYPE H. Auger	GROUND WATER LEVEL	
"O.D."	"I.D."	Date	Time
# FALL	HAMMER	12/7/01	
		Depth	Remarks
			No water

IG FT.	DEPTH	SPOON BLOWS/6"	RE-COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
0					ASPHALT
2.5		Hand Auger	Full Rec	1	Misc Fill - Cinders, Sand, Gravel
				2	Same
				3	Same
				4	Same
5.0					Bottom of Boring

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used
2 - U = undisturbed; A = auger; OER = open end rod; V = vane
3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

Sheet 2 of 3

PID Model: 14

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ENGINEERING DEPARTMENT
MAINTENANCE ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

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Sheet 2 of 3

CT: PP-Former Metro Metals
LOCATION: $\pm 10'$ West of PAC6 DATE: 12/7/01
ID No: PAC6-W3 TOTAL No. OF SAMPLES: 4

DESCRIPTION OF ALL

TEST AT SAMPLING

TESTED	DATE	RECEIVED
BY T. H. G. <td>12/7/01<td>BY (SIGN)</td></td>	12/7/01 <td>BY (SIGN)</td>	BY (SIGN)

TESTED	DATE	RECEIVED
BY	TIME	BY (SIGN)

TESTED	DATE	RECEIVED
BY	TIME	BY LAB

REMARKS: 4 samples in 4 16oz jars

BORING REPORT

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FC: PN - Former Metro Metals

WORKING No. PA-C6-S-1

DATE: 12/3/01

FIELD READINGS BY: T. K.

PID Model: 7

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

OBJECT: PN - Former Metro Metals
 LOCATION: ± 1' South of PA-C6 DATE: 12/3/01
 RING No: PA-C6-S1 TOTAL No. OF SAMPLES: 4

NATURE OF ALL

SENT AT SAMPLING

T. Rye

RECEIVED

DATE 12/3/01

RECEIVED

(SIGN)

T. Rye

TIME

BY (SIGN)

RECEIVED

DATE

RECEIVED

(SIGN)

TIME

BY (SIGN)

RECEIVED

DATE

RECEIVED

(SIGN)

TIME

BY LAB

REMARKS:

4 samples in 4-16oz jars.

BORING REPORT

BORING REPORT

SHEET 7 OF 3

PROJECT PN- Former Metro Metals		NAME OF CONTRACTOR Craig		BORING NO. PA-C6-S12		SURFACE ELEV.	
LOCATION ± 5' South of PAC6				CONTRACT NO. 426-99-006		DATE 12/5/01	
JOHN "O.D." "I.D."		CASING SIZE HOLE TYPE H. Auger		GROUND WATER LEVEL			
DIPPER # FALL		HAMMER # FALL		Date	Time	Depth	Remarks
				12/5/01			No water
DRILLER A. Kidas							
DIRECTOR T. Gao							
CASING WS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE		
1.2	0				Asphalt		
		Hand Auger	Full Re		Misc Fill - Cinders, Sand, Gravel, Wood, Metal		
	2.5			1	Same		
				2	Same		
				3	Same		
				4	Same		
	5.0				Bottom of Boring		

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

**ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS**

Sheet 2 of 3

PID Model: 14

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THE PORT AUTHORITY OF N.Y. & N.J.

ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

OBJECT: PN- Former Metro Metals

LOCATION: ± 5' South of PAC6

DATE: 12/5/01

DRIING No: PA-C6-S2

TOTAL No. OF SAMPLES: 4

SIGNATURE OF ALL

SENT AT SAMPLING

T. Ryan

INQUIRED

DATE 12/5/01

RECEIVED

(SIGN)

T. Ryan

TIME

BY (SIGN)

INQUIRED

DATE

RECEIVED

(SIGN)

TIME

BY (SIGN)

ELINQUIRED

DATE

RECEIVED

(SIGN)

TIME

BY LAB

REMARKS:

4 samples in 4 16oz jars

BORING REPORT

BORING REPORT

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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Sheet 2 of 3

PID Model: 14

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ENGINEERING DEPARTMENT
 MATERIALS ENGINEERING DIVISION
 CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

JECT: PN-Former Metro Metals

ATION: $\pm 10'$ South of PA-CL

DATE: 12/7/01

ING No: PAC6-S3

TOTAL No. OF SAMPLES: 4

ATURE OF ALL

ENT AT SAMPLING

T. Rya

ACQUISHED

DATE 12/7/01

RECEIVED

(SIGN)

T. Rya

TIME

BY (SIGN)

ACQUISHED

DATE

RECEIVED

(SIGN)

TIME

BY (SIGN)

ACQUISHED

DATE

RECEIVED

(SIGN)

TIME

BY LAB

AA: 4 samples in 4 16 oz jars.

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PR: PN-Former Metro Metals

ORING No. PACG-54 DATE: 12/11/01

FIELD READINGS BY: T. Gan PID Model: 14

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

JECT: PN - Former Metro Metals
 TION: ± 20' South of PA-C6 DATE: 12/11/01
 NG No: PAC6-S4 TOTAL No. OF SAMPLES: 4

SIGNATURE OF ALL

SENT AT SAMPLING

T. Ryan

DISPATCHED

DATE

RECEIVED

SIGNATURE

TIME

BY (SIGN)

T. Ryan

DISPATCHED

DATE

RECEIVED

SIGNATURE

TIME

BY (SIGN)

DISPATCHED

DATE

RECEIVED

SIGNATURE

TIME

BY LAB

REMARKS:

4 samples in 4 16oz jars

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

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SHEET 1 OF 2
SURFACE ELEV.

DATE 4/29/02

BORING NO. BH-PB-6635

CONTRACT NO. 476-99-006

NAME OF CONTRACTOR Craig Drilling

PROJECT NY - Metro Metals

LOCATION 40' South of PA-C6

OD. 2 3/4" ID. CASING SIZE HOLE TYPE 1
HAMMER
FALL 30

INSPECTOR A K J
D Howe

GROUND WATER LEVEL			
Date	Time	Depth	Remarks
4/29	7 ³⁰	.5'	Water in Asphalt Millings

BORING LOGS/FT.	DEPTH	SPOON BLOWS/6"	RE-COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE	G.D.
1	0	Hand Auger	Fall		Asphalt Millings	2.0
1	1	Tapped Spoon	12'	1	Misc Fill - Gravel, Crushed Asphalt, Sand, Brick, etc.	3.0
	6				Bottom of Boring Hit Obstruction Possible Concrete Slab Moved 4' NW to PA-C6-55A Resumed Sampling at 3'	
	10				All Samples checked for Lead, Cadmium, PCBs, etc. 8" 1 2-3 Test for TPH in field Sample sent by check to lab for testing	
	15					
	20					
	25					

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used
2 - U = undisturbed; A = auger; OER = open end rod; V = vane
3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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ORING No. BH-PA-CG-55

DATE: 4/29/02

OLD READINGS BY: *D. H. Jones*

PID Model: M_{12}, PBF

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Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

ECT Y-Metro Mats		NAME OF CONTRACTOR Craig Drilling		BORING NO. BH-PB-C6-55A		SHEET 1 OF 2	
TON 4' NW of PB-C6-55				CONTRACT NO. 426-99-006		SURFACE ELEV.	
W O.D. 2 3/8 I.D. Auger		HOLE TYPE 1		GROUND WATER LEVEL		DATE 4/29/02	
MER W FALL 30		HAMMER		Date		Time	
ER DKJes		1 FALL		4/29		9:30	
ECTOR D Howe				Depth		Remarks	
				4/29		1.5	
				4/29		10:00	
						Ground water, 5' y	

ING WS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE	
	0	Hand Auger	Full		Asphalt Millings	0.0
		↓	↓			2.0
		Tapped Spoon	6"	1	Misc Fill - Cinders, Sand, Gravel, Asphalt, etc	
		↓	14"	2	Same	
	5	↓			Misc Fill, Mats, Crushed Stone, Sand, etc	6.0
		14-29		3		
		38-52	20"		Fill M-F Brown Sand, Tr Gravel, Tr silt	
		4-8		4		
	10	13-19	16"		Same	10.0
					Bottom of Boring	
					All Samples checked with PIR Meter	
					S# 1/2 + S# 4 (9'-9.5') saved for testing	
					& checked for TPH infill by chem lab	
					Remaining samples discarded	
	15					
	20					
	25					

NOTES: 1 - Length recovered; 0* - Loss of Sample, T - Trap used
2 - U = undisturbed; A = auger; OER = open end rod; V = vane

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Sheet 2 of 2

PID Model: Mini RAB

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Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

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PROJECT N. Metro Metals		NAME OF CONTRACTOR Craig Drilling		BORING NO. BH-PA-CL-56		SHEET 1 OF 2	
LOCATION 10' 30" South of BH-PA-CL-56		CONTRACT NO. 47699-006		DATE 4/29/02		SURFACE ELEV.	
Casing Size 4" O.D. 2 3/8" I.D.		Hole Type 1		GROUND WATER LEVEL			
Casing Size HAMMER		# FALL		Date	Time	Depth	Remarks
4" FALL 30				4/29	11:5	15	w Asphalt Millings
A Kites				4/29	12:45	9.5	groundwater 8' 5"
D Howe							

ENG. S.F.T.	DEPTH	SPOON BLOWS/6"	RE-COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE	
	0	Hard Auger	Full		Asphalt Millings	0.0
	1.5				Fill - M-F Brown Sand, Tr Silt, Tr Gravel	1.0
	2.5	Topped Spoon	12"	1	Misc Fill - Asphalt, Curbing Gravel, Silt, ETC	2.0
	3.5		7"	2	Misc Fill - Sand, Gravel, Bricks, Metal, ETC	3.0
	4.5		15"	3	Misc Fill - Sand, Metal, Silt, Gravel, ETC	4.0
	5.5	11-14		4	Fill - M-F Gray Brown Sand, Tr Gravel, Tr Silt	5.0
	6.5	17-27	16"			6.0
	7.5	8-11		5	Same	7.0
	8.5	15-19	18"			8.0
	9.5					9.0
	10.5					10.0
	11.5					11.0
	12.5					12.0
	13.5					13.0
	14.5					14.0
	15.5					15.0
	16.5					16.0
	17.5					17.0
	18.5					18.0
	19.5					19.0
	20.5					20.0
	21.5					21.0
	22.5					22.0
	23.5					23.0
	24.5					24.0
	25.5					25.0

Bottom of Boring

PA Samples checked with P.D. Meter
5' 1, 2 & 5 (9' - 11') Sand for Testing
& checked w/ field for JPRK
Remaining Sample Documented

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used

2 - U = undisturbed; A = auger; OER = open end rod; V = vane

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Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

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PROJECT PN-Metro Metab		NAME OF CONTRACTOR Crazy Drilling		BORING NO. BH PBC-57	SHEET 1 OF 2
LOCATION E 5' South of BH PBC-54		CONTRACT NO. Y26-99-006		DATE 4/30/02	
POON 3	O.D. 2 3/4	I.D.	CASING SIZE Auger	HOLE TYPE 1	GROUND WATER LEVEL
HAMMER 140 # FALL 30			HAMMER		
DRILLER D Cooke					
SPECTOR P Hume					
Date		Time		Depth	Remarks
4/30		1 PM		1.0	in Asphalt Milling
4/30		1:45		9.5	ground water 5' 5"
CASING DOWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
land	0	Hand Auger	F-1		Asphalt Milling
Auger ↓		↓	↓		2.0
Yellow		Tapped Spore	12'	1	Misc Fill Asphalt, Sand, Brick, ETC
STOM		↓	10'	2	Misc Fill Gravel, Brick, Sand, Asphalt, ETC
Auger	5	↓	18'	3	Same
		15-16		4	
		19-22	19'		Fill M-P Gray Brown Sand, Gravel, IR 5.17
		11-15			
	10	16-18	19'	5	Same
					Bottom of Boring
	15				All Samples checked with PID Meter
					5' / 12 & 5 (9-93) Sample for Testing
					checked for TPH in field By Chem Lab
					Remaining Sample Discarded
	20				
	25				

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
 2 — U = undisturbed; A = auger; OER = open end rod; V = vane
 3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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THE PORT AUTHORITY OF NY & NJ

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Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT N-Former Metro Metrol		NAME OF CONTRACTOR Craig		BORING NO. PA-C7-N.1		SHEET 1 OF 3	
LOCATION E 1' N. of PA-C7				CONTRACT NO. 426-99-006		DATE 12/4/01	
Casing Size H. Auger		HOLE TYPE H. Auger		GROUND WATER LEVEL			
O.D.		I.D.		Date	Time	Depth	Remarks
FALL		FALL		12/4/01	10:30A		No water encountered
ER A. Kidas							
DIRECTOR T. Ryan							

DEPTH IN FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	*SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
0					Miss Fill - As Silt, Sand, Gravel, Metal, Core Silt 0.3'
					Asphalt 1.1'
		Hand Auger			Miss Fill - Silt, Gravel, Gr, Wood, Metal
2.5			Full Rec.	1	Same
				2	Same
				3	Fill - B-M-F Sand, to Silt, to Gr
				4	Same
5.0					Bottom of Boring

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

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Sheet 2 of 3

P10 Model: 14

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THE PORT AUTHORITY OF N.Y. & N.J.

ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

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Sheet 3 of 3

SUBJECT: PN - Former Metro Metals

LOCATION: \pm 1' N of PA-C7

DATE: 12/4/01

TESTING No: PA-C7-N1

TOTAL No. OF SAMPLES: 4

SIGNATURE OF ALL

PRESENT AT SAMPLING

T. Ryan

PREPARED BY

DATE 12/4/01

RECEIVED

SIGNATURE

T. Ryan

TIME

BY (SIGN)

PREPARED BY

DATE

RECEIVED

SIGNATURE

TIME

BY (SIGN)

PREPARED BY

DATE

RECEIVED

SIGNATURE

TIME

BY LAB

REMARKS: 4 samples in 4-16 oz jars

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THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT 2nd NAPOLAND SITE - BERTH 63		NAME OF CONTRACTOR CRAIG		BORING NO. BH-NSD	SHEET 1 OF 1
LOCATION 5' South from BH-NSC		CONTRACT NO. 426-99-007		SURFACE ELEV. 8/27/99	
BOON *O.D. *I.D. *FALL	CASING SIZE *I.D. *FALL	HOLE TYPE HAMMER *FALL	GROUND WATER LEVEL		
DRILLER S. Burns			Date	Time	Depth
DIRECTOR M. Juch			Remarks		

BORG IN/FT.	DEPTH	SPOON BLOWS/6"	RE- COY'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
	0	Hand Auger	Full	—	Misc. Fill
	5				Obstruction found AT ±2.6'
	10				Relocated Boring
	15				Bottom of Boring
	20				
	25				

NOTES: 1 — Length recovered: 0" — Loss of Sample T — Trap used

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APPENDIX B

Table B-1
Survey Data
Boring and Monitoring Well Location and Elevations
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

ITEM	NORTH	EAST	ELEVATION	DESCRIPTION
PA-C6-S1	673493.03368	590899.38016		
PA-C6-S2	673489.03368	590899.38016		
PA-C6-S3	673484.03368	590899.38016		
PA-C6-S4	673474.03368	590899.38016		
PA-C6-S5	673454.03368	590899.38016		
PA-C6-S5A	673454.03368	590899.38016		
PA-C6-S6	673464.03368	590899.38016		
PA-C6-S7	673469.03368	590899.38016		
PA-C7	673132.08006	590627.12031	307.70	-
PA-C7-W1	673132.08006	590626.12031		
PA-C7-E1	673132.08006	590628.12031		
PA-C7-N1	673133.08006	590627.12031		
PA-C7-S1	673131.08006	590627.12031		

Note: Horizontal survey data of borehole/well locations drilled by Port Authority personnel are presented in NAD 83 datum.
Vertical survey data of borehole/well locations drilled by Port Authority personnel are presented in Port Authority datum which is 297.65 above mean sea level based on NGVD 29 datum.

Table B-1
Survey Data
Boring and Monitoring Well Location and Elevations
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

ITEM	NORTH	EAST	ELEVATION	DESCRIPTION
BH-N1	673883.79667	590073.72762	306.68	-
BH-N1-W1	673883.79667	590072.72762		
BH-N1-E1	673883.79667	590074.72762		
BH-N1-N1	673884.79667	590073.72762		
BH-N1-S1	673882.79667	590073.72762		
MW-N2	674086.01241	590257.21356	307.69 307.39 307.69	RIM P.V.C. ASPHALT
MW-N5	673099.41927	590592.00169	307.21 306.94 307.10	RIM P.V.C. G.L.
BH-N5	673214.02411	590546.88200	307.10	-
BH-N6	673456.70000	590392.00000	307.80	-
BH-N7	673354.90000	590519.30000	308.30	-
MW-C1	673963.24423	590537.61748	305.53 305.37 305.50	RIM P.V.C. G.L.
MW-C2	673676.53592	590910.69377	307.17 306.80 307.20	RIM P.V.C. G.L.
MW-C3	673652.64794	590635.23255	308.35 308.12 308.30	RIM P.V.C. G.L.
MW-C4	673695.72387	590380.99591	307.11 306.72 307.10	RIM P.V.C. G.L.
MW-C5	673310.77792	590927.06172	307.51 307.42 307.5	RIM P.V.C. G.L.
MW-C5-W1	673310.77792	590926.06172		
MW-C5-E1	673310.77792	590928.06172		
MW-C5-N1	673311.77792	590927.06172		
MW-C5-S1	673309.77792	590927.06172		
PA-C6	673494.03368	590899.38016	307.30	-
PA-C6-W1	673494.03368	590898.38016		
PA-C6-W2	673494.03368	590894.38016		
PA-C6-W3	673494.03368	590889.38016		
PA-C6-E1	673494.03368	590900.38016		
PA-C6-E2	673494.03368	590904.38016		
PA-C6-E3	673494.03368	590909.38016		
PA-C6-E4	673494.03368	590919.38016		
PA-C6-E5	673494.03368	590939.38016		
PA-C6-E6	673494.03368	590929.38016		
PA-C6-E7	673494.03368	590949.38016		
PA-C6-E8	673494.03368	590924.38016		
PA-C6-E9	673494.03368	591009.38016		
PA-C6-E10	673494.03368	591049.38016		
PA-C6-E11	673494.03368	591089.38016		
PA-C6-N1	673495.03368	590899.38016		
PA-C6-N2	673495.03368	590899.38016		

Table B-2
Coordinate Data - Soil Boring Locations
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

ITEM	NORTH	EAST	ELEVATION	DESCRIPTION
SB-1	673301.28	589787.87	NA	*
SB-2	673314.09	589864.68	NA	*
SB-3	673241.51	589824.85	NA	*
SB-4	673400.89	589886.01	NA	*
SB-5A	673208.79	589893.13	NA	*
SB-5B	673548.46	589935.80	NA	*
SB-5C	673864.8	590026.84	NA	*
SB-5D	673847.72	590220.29	NA	*
SB-5E	673346.82	590117.87	NA	*
SB-5F	673184.6	590318.44	NA	*

Notes: * Survey data of borehole locations drilled by Excel Environmental Resources, Inc. are presented in NAD 83 datum and are of proposed and not as built boring locations.

NA - Not Available

ADDITIONAL SAMPLING REPORT

ADDENDUM NO. 3

to

EXHIBIT I

to Lease No. L-PN-264

between

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

and

PORT NEWARK CONTAINER TERMINAL LLC



For the Port Authority

Initialed:



For the Lessee

ADDITIONAL SAMPLING REPORT

ADDENDUM NO. 3

to

EXHIBIT I

to

Lease No. L-PN-264

between

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY

and

PORT NEWARK CONTAINER TERMINAL LLC

June 2002

**PORT NEWARK CONTAINER TERMINAL, LLC
ADDITIONAL SAMPLING REPORT**

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1.0 INTRODUCTION

In September and October 2000 and April and May 2002, the Port Authority of New York and New Jersey (the "Port Authority") conducted supplemental soil and groundwater sampling at the premises under Port Authority Lease No. L-PN-264 between the Port Authority and Port Newark Container Terminal LLC ("PNCT"). The soil sampling was performed to further delineate soil exceedances detected during a baseline investigation conducted by PNCT and the supplemental groundwater sampling was performed to respond to comments received from the New Jersey Department of Environmental Protection ("NJDEP").

2.0 FIELD ACTIVITIES

The purpose of the supplemental soil investigation was to provide additional soil delineation to further establish current environmental conditions of subsurface soils. The purpose of the supplemental groundwater investigation was to provide additional water quality data for the area located upland of Berths 51 to 61 at Port Newark. Sampling locations were designated by the Port Authority. The area encompassing the terminal is approximately 154 acres. Figure 1 presents the Site Plan as provided by GEOD Corporation, a NJ licensed land surveyor.

The supplemental investigation activities included the drilling of 20 soil borings and the collection of 5 groundwater samples at locations shown in Figure 1. Table 2-1 provides a summary of the analytical methods performed. All investigative work conducted for the supplemental investigation program was performed in accordance with the NJDEP Field Sampling Procedures Manual, May 1992. Information collected during the investigation was recorded in a bound fieldbook and in conformance with the Port Authority's "Environmental Baseline Field Program, Port Newark, June 1999".

2.1 SOIL SAMPLING PROGRAM

The supplemental soil sampling program was conducted at the site on September 7 and 8, and October 2 and 3, 2000. Soil borings were advanced using a combination of hand auger and hollow stem auger ("HSA") drilling techniques. Hand augering was performed to advance the first 6 feet of each boring advanced deeper than 2 feet below ground surface ("bgs"). The HSA techniques were used to advance the remainder of the soil borings that were drilled to a final depth of 11.5 feet bgs. The soil borings that were completed at depths less than 11.5 bgs were completed exclusively by hand augering. Continuous samples were collected from borings advanced via HSA techniques by using 2 3/8-inch inside diameter carbon steel split-spoons with all samples collected from beneath the asphalt cover and subbase. A total of 20 soil samples were collected for laboratory analysis. Soil boring logs are included in Appendix A.

The following summarizes the soil samples collected from the borings:

<u>Sample ID</u>	<u>Boring</u>	<u>Sampling Depth</u>	<u>Sampling Date</u>
PO-BH02A-090800	BH-MW-2A ⁽¹⁾	11-11.5 feet	09/08/00
PO-BH02B-090800	BH-MW-2B ⁽¹⁾	11-11.5 feet	09/08/00
PO-BH02C-090800	BH-MW-2C ⁽¹⁾	11-11.5 feet	09/08/00
PO-BH02D-090800	BH-MW-2D ⁽¹⁾	11-11.5 feet	09/08/00
PO-BH02E-090800	BH-MW-2E ⁽¹⁾	11-11.5 feet	09/08/00
PO-BH13A-090700	BH-MW-13A ⁽²⁾	6.5-7 feet	09/07/00
PO-BH13B-090700	BH-MW-13B ⁽²⁾	6.5-7 feet	09/07/00
PO-BH13C-090700	BH-MW-13C ⁽²⁾	6.5-7 feet	09/07/00
PO-BH13D-100300	BH-MW-13D ⁽²⁾	6.5-7 feet	10/03/00
PO-BH13E-100300	BH-MW-13E ⁽²⁾	6.5-7 feet	10/03/00
PO-BH14A-090700	BH-MW-14A ⁽²⁾	1.5-2 feet	09/07/00
PO-BH14B-090800	BH-MW-14B ⁽²⁾	1.5-2 feet	09/08/00
PO-BH14C-090800	BH-MW-14C ⁽²⁾	1.5-2 feet	09/08/00
PO-BH14D-090800	BH-MW-14D ⁽²⁾	1.5-2 feet	09/08/00
PO-BH14E-100300	BH-MW-14E ⁽²⁾	1.5-2 feet	10/03/00
PO-BH14F-100300	BH-MW-14F ⁽²⁾	1.5-2 feet	10/03/00
PO-BH14G-100300	BH-MW-14G ⁽²⁾	1.5-2 feet	10/03/00
PO-BH14H-100300	BH-MW-14H ⁽²⁾	1.5-2 feet	10/03/00

⁽¹⁾ Indicates that the boring was advanced using a hand auger to 6 feet bgs and completed using HSA drilling techniques to final depth.

⁽²⁾ Indicates that the boring was advanced using a hand auger to final depth.

Sample intervals for laboratory analysis in each boring were selected based on the delineation information needed at each area (i.e., horizontal or vertical). Actual sample depth intervals varied depending on several factors, as follows:

- The soil recovered for each sample needed to be sufficient to fill the required sample jars. At times, it was necessary to collect soil from more than a six-inch interval to fulfill this requirement.
- In instances where a confining layer was encountered before reaching the water table, a sample was collected directly above the confining layer thereby not compromising the layer by drilling through it.
- When elevated photoionization detector ("PID") readings or an odor not associated with natural organic material was detected while field screening split-spoon samples, these samples were also sent for analysis.

Soil sampling was conducted in accordance with the following procedure:

1. Extract the split-spoon from the borehole, open it and lay it on plastic. In the case of borings completed using a hand auger, extract the auger and transfer the auger contents to a decontaminated stainless-steel bowl.
2. Log the sample and perform headspace screening analysis using a PID.
3. Transfer the soil to a decontaminated stainless-steel bowl, if necessary, and homogenize using a decontaminated stainless-steel spoon.

4. Transfer homogenized soil to the laboratory supplied sample containers.
5. Label the sample and record sample information in the field book.
6. Place labeled sample in a cooler with ice.
7. Complete the chain of custody form and ship samples to the laboratory for analysis.

Sampling equipment was decontaminated according to the following procedure before use at each discrete sample location:

1. Wash the equipment with non-phosphate detergent and potable water.
2. Rinse with potable water.
3. Rinse with deionized water.
4. Allow equipment to air dry.
5. Wrap equipment in aluminum foil.

Soil samples were analyzed for the following parameters:

- Polynuclear Aromatic Hydrocarbons (PAHs);
- Polychlorinated Biphenyls (PCBs);
- Select Target Analyte List (TAL) Metals, specifically chromium, copper, lead, mercury, thallium and zinc; and,
- Percent Solids.

2.2 GROUNDWATER SAMPLING PROGRAM

The groundwater investigation program involved the collection of 5 groundwater samples from select existing monitoring wells at the terminal as follows:

<u>Sample ID</u>	<u>Monitoring Well</u>	<u>Sampling Date</u>
PNO-MW-14A-091900WG1	MW-14	09/19/00
PNO-MW-12SB13-091900WG1	MW-12	09/19/00
PO-MW05-042002WG01	MW-05	04/20/02
PO-MW11-042002WG01	MW-11	04/20/02
PO-MW14-042302WG01	MW-14	04/23/02
PNCT-MW11-053102	MW-11	05/31/02

Groundwater samples were collected via low-flow sampling techniques according to the following procedure:

1. Wearing the appropriate PPE, open the monitoring well and screen the headspace of the well using a PID to determine if VOCs are present.
2. Measure the static water level in the monitoring well from top of inner casing using an electronic water level meter. Minimize the disturbance to the water column.
3. Check for free product or sheen floating on water surface in the well.

4. Carefully lower the low-flow pump into the water column until the intake of the pump is in the middle of the saturated section of the screen. Minimize disturbance to the water column.
5. Purge the well using a low flow rate (<0.5 l/min) until indicator parameters (i.e., pH, conductivity, dissolved oxygen, etc.) have stabilized. Drawdown in the well should not exceed 0.3 foot.
6. Without stopping the pump, collect groundwater samples using same flow rates as established during purging.
7. Fill sample bottles directly from the pump discharge tubing. VOC sample vials will be filled first, then remaining sample bottles.
8. Label the samples and record sampling information in the field book.
9. Place labeled samples in a cooler with ice. A trip blank will be maintained in the cooler during each sampling day.
10. Complete the chain of custody form and ship samples to the laboratory for analysis.

The submersible pump used for groundwater sampling was decontaminated prior to use on each well according to the following procedure:

1. Manually wash the outside of the pump using non-phosphate detergent and potable water.
2. Rinse the outside of the pump using potable water.
3. Flush the pump with 20 gallons of potable water by pumping the water through the housing and tubing.
4. Rinse the exterior housing with distilled/deionized water.
5. Repeat this procedure between each use of the pump.
6. Collect the rinsate from the pump decontamination in drums for disposal.

Dedicated teflon-lined tubing was used for sampling each well.

MW-14 was purged and sampled using a polypropylene bailer since the pump control box malfunctioned. MW-14 was purged by carefully lowering the bailer into the well, and removing groundwater from the well. Water quality parameters including pH, turbidity, conductivity, temperature, dissolved oxygen and oxidation-reduction potential were measured during this process. Groundwater samples were collected for MW-14 after parameter stabilization by transferring water directly from the bailer into the sample bottles. This sampling technique is considered to yield accurate analytical results, similar to what might be obtained by sampling directly from a pump discharge. Groundwater samples were analyzed for metals, including antimony, arsenic, lead and thallium, by EPA Method 200.7.

3.0 RESULTS

3.1 SOIL SAMPLING RESULTS

The analytical results for soil samples were compared to NJDEP's "Soil Cleanup Criteria (mg/kg)", dated 5/12/99 and available through the NJDEP's website (<http://www.state.nj.us/dep/srp/regs/guidance.htm>). The criteria on the list include the following:

- Residential Direct Contact;
- Non-Residential Direct Contact; and,
- Impact to Groundwater.

Twenty soil samples, plus appropriate QA/QC samples, were collected from twenty soil borings. Samples were submitted to Hampton-Clarke, Inc., Veritech Laboratories of Fairfield, New Jersey for analysis. The soil samples were analyzed for the following parameters:

- Polynuclear Aromatic Hydrocarbons (PAHs);
- Polychlorinated Biphenyls (PCBs);
- Select Target Analyte List (TAL) Metals, specifically chromium, copper, lead, mercury, thallium and zinc; and,
- Percent Solids.

A posting map depicting sample locations where sample concentrations exceed criteria is provided as Figure 1.

3.1.1 Polynuclear Aromatic Hydrocarbons (PAHs)

The following soil samples were analyzed for selected polynuclear aromatic hydrocarbons (PAHs) by EPA SW-846 Method 8270:

PO-BH14A (1.5-2)
PO-BH14B (1.5-2)
PO-BH14C (1.5-2)
PO-BH14D (1.5-2)
PO-BH14E (1.5-2)
PO-BH14F (1.5-2)
PO-BH14G (1.5-2)
PO-BH14H (1.5-2)

A summary of the PAHs detected in the soil samples is presented in Table 3-1.

The concentration of benzo(a)anthracene detected in the following samples exceeded the residential direct contact soil cleanup criterion (RDCSCC) of 0.9 mg/kg, the most stringent criterion for benzo(a)anthracene:

<u>Sample</u>	<u>Concentration Detected (mg/kg)</u>
PO-BH14A (1.5-2)	2
PO-BH14B (1.5-2)	3.7
PO-BH14C (1.5-2)	14
PO-BH14D (1.5-2)	4.4
PO-BH14E (1.5-2)	2
PO-BH14G (1.5-2)	0.91
PO-BH14H (1.5-2)	2.4

The concentration of benzo(b)fluoranthene detected in the following samples exceeded the RDCSCC of 0.9 mg/kg, the most stringent criterion for benzo(b)fluoranthene :

<u>Sample</u>	<u>Concentration Detected (mg/kg)</u>
PO-BH14A (1.5-2)	2.9
PO-BH14B (1.5-2)	4
PO-BH14D (1.5-2)	5.7
PO-BH14E (1.5-2)	1.8
PO-BH14G (1.5-2)	1.1
PO-BH14H (1.5-2)	3

The concentration of benzo(k)fluoranthene detected in the following samples exceeded the RDCSCC of 0.9 mg/kg, the most stringent criterion for benzo(k)fluoranthene:

<u>Sample</u>	<u>Concentration Detected (mg/kg)</u>
PO-BH14A (1.5-2)	1.5
PO-BH14B (1.5-2)	3.1
PO-BH14C (1.5-2)	30
PO-BH14D (1.5-2)	3.6
PO-BH14E (1.5-2)	1.1
PO-BH14H (1.5-2)	1.4

The concentration of benzo(a)pyrene detected in the following samples exceeded the RDCSCC and non-residential direct contact soil cleanup criterion (NRDCSCC), both 0.66 mg/kg and the most stringent criteria for benzo(a)pyrene:

<u>Sample</u>	<u>Concentration Detected (mg/kg)</u>
PO-BH14A (1.5-2)	1.9
PO-BH14B (1.5-2)	3
PO-BH14C (1.5-2)	11

PO-BH14D (1.5-2)	3.8
PO-BH14E (1.5-2)	1.3
PO-BH14G (1.5-2)	0.81 J
PO-BH14H (1.5-2)	1.7

J indicates the concentration of the compound is estimated

3.1.2 Polychlorinated Biphenyls

The following soil samples were analyzed for polychlorinated biphenyls (PCBs) by EPA SW-846 Method 8082:

PO-BH14A (1.5-2)
PO-BH14B (1.5-2)
PO-BH14C (1.5-2)
PO-BH14D (1.5-2)
PO-BH14E (1.5-2)
PO-BH14F (1.5-2)
PO-BH14G (1.5-2)
PO-BH14H (1.5-2)

PCB Aroclors, including Aroclor 1242 and 1260, were detected in soil samples above the Soil Cleanup Criteria. Each of the individual aroclors was compared to the criteria for total PCBs.

The concentration of Aroclor 1242 detected in the following samples exceeded the RDCSCC of 0.49 mg/kg, the most stringent criterion for total PCBs:

<u>Sample</u>	<u>Concentration Detected (mg/kg)</u>
PO-BH14A (1.5-2)	2.3
PO-BH14B (1.5-2)	8.2
PO-BH14C (1.5-2)	4
PO-BH14D (1.5-2)	6.1
PO-BH14E (1.5-2)	2.2
PO-BH14F (1.5-2)	1.7
PO-BH14G (1.5-2)	0.96
PO-BH14H (1.5-2)	5.9

The concentration of Aroclor 1260 detected in the following samples exceeded the RDCSCC of 0.49 mg/kg, the most stringent criterion for total PCBs:

<u>Sample</u>	<u>Concentration Detected (mg/kg)</u>
PO-BH14A (1.5-2)	2
PO-BH14B (1.5-2)	6.2
PO-BH14C (1.5-2)	3.3

PO-BH14D (1.5-2)	4.9
PO-BH14E (1.5-2)	11
PO-BH14F (1.5-2)	4.4
PO-BH14G (1.5-2)	6.4
PO-BH14H (1.5-2)	6.5

3.1.3 TAL Metals

The following soil samples were analyzed for select metals including chromium, copper, lead, thallium and zinc by EPA SW-846 Method 6010 and Mercury by EPA SW-846 Method 7471A, as indicated:

<u>Sample ID</u>	<u>Analytes</u>
PO-BH02A-090800	Chromium, Thallium, Zinc
PO-BH02B-090800	Chromium, Thallium, Zinc
PO-BH02C-090800	Chromium, Thallium, Zinc
PO-BH02D-090800	Chromium, Thallium, Zinc
PO-BH02E-090800	Chromium, Thallium, Zinc
PO-BH13A-090700	Chromium
PO-BH13B-090700	Chromium
PO-BH13C-090700	Chromium
PO-BH13D-100300	Chromium
PO-BH13E-100300	Chromium
PO-BH14A (1.5-2)	Copper, Lead, Mercury, Zinc
PO-BH14B (1.5-2)	Copper, Lead, Mercury, Zinc
PO-BH14C (1.5-2)	Copper, Lead, Mercury, Zinc
PO-BH14D (1.5-2)	Copper, Lead, Mercury, Zinc
PO-BH14E (1.5-2)	Copper, Lead, Mercury, Zinc
PO-BH14F (1.5-2)	Copper, Lead, Mercury, Zinc
PO-BH14G (1.5-2)	Copper, Lead, Mercury, Zinc
PO-BH14H (1.5-2)	Copper, Lead, Mercury, Zinc

The concentrations of chromium detected in soil were compared to the soil cleanup criteria for the trivalent form of chromium. The only criterion for trivalent chromium is the RDCSCC of 120,000 mg/kg. No soil samples exceeded the RDCSCC for chromium.

The concentration of copper detected in the following samples exceeded the residential RDCSCC and NRDCSCC, both 600 mg/kg and the most stringent criteria for copper:

<u>Sample</u>	<u>Concentration Detected (mg/kg)</u>
PO-BH14B (1.5-2)	3,500
PO-BH14D (1.5-2)	1,200
PO-BH14E (1.5-2)	720

The concentration of lead detected in the following samples exceeded the RDCSCC of 400 mg/kg, the most stringent criterion for lead:

<u>Sample</u>	<u>Concentration Detected (mg/kg)</u>
PO-BH14A (1.5-2)	8,000
PO-BH14B (1.5-2)	2,800
PO-BH14C (1.5-2)	1,700
PO-BH14D (1.5-2)	2,500
PO-BH14E (1.5-2)	35,000
PO-BH14F (1.5-2)	2,900
PO-BH14G (1.5-2)	810
PO-BH14H (1.5-2)	2,500

The concentration of mercury detected in the following samples exceeded the RDCSCC of 14 mg/kg, the most stringent criterion for mercury:

<u>Sample</u>	<u>Concentration Detected (mg/kg)</u>
PO-BH14B (1.5-2)	38
PO-BH14C (1.5-2)	18
PO-BH14E (1.5-2)	19

The concentration of zinc detected in the following samples exceeded the RDCSCC and NRDCSCC, both 1,500 mg/kg and the most stringent criteria for zinc:

<u>Sample</u>	<u>Concentration Detected (mg/kg)</u>
PO-BH14B (1.5-2)	3,300
PO-BH14D (1.5-2)	2,100
PO-BH14F (1.5-2)	1,800
PO-BH14H (1.5-2)	10,000

3.2 GROUNDWATER SAMPLING RESULTS

The analytical results for groundwater samples were compared to NJDEP's "Groundwater Quality Standards N.J.A.C 7:9-6, Table 1 – Specific Ground Water Quality Criteria – IIA and Practical Quantitation Levels" (GWQS), available through the NJDEP website (<http://www.state.nj.us/dep/srp/regs/guidance.htm>). Detected concentrations of analytes in the groundwater were compared to the criteria provided in the GWQS Table 1 column entitled "Higher of PQLs and Ground Water Quality Criteria"

Six groundwater samples, including one duplicate, were collected from four monitoring wells including MW-05, MW-11, MW-12 and MW-14. MW-12 and MW-14 were sampled on September 19, 2000. MW-5 and MW-11 were sampled on April 20, 2002 and MW-14 was resampled on April 23, 2002. MW-11 was also sampled again on May

31, 2002. The groundwater samples were analyzed for metals, including antimony, arsenic, lead and thallium, by EPA Method 200.7.

Table 3-2 presents the analytical results for groundwater samples collected during September 2000, April 2002 and May 2002. At the completion of the groundwater sampling, no parameter exceeded the applicable NJDEP GWQS.

Table 1
Summary of Soil Sampling Program
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Location ID	Collected by	Site	Date
SB-1	Excel	Metro Metals	6/23/1999
SB-2	Excel	Metro Metals	6/23/1999
SB-3	Excel	Metro Metals	6/23/1999
SB-4A ¹	Excel	Metro Metals	6/24/1999
SB-4B ¹	Excel	Metro Metals	6/24/1999
SB-5A	Excel	Metro Metals	6/23/1999
SB-5B	Excel	Metro Metals	6/23/1999
SB-5C	Excel	Metro Metals	6/23/1999
SB-5D	Excel	Metro Metals	6/25/1999
SB-5E	Excel	Metro Metals	6/23/1999
SB-5F	Excel	Metro Metals	6/25/1999
MW-C1	PA	Metro Metals	6/23/1999
MW-C2	PA	Metro Metals	6/22/1999
MW-C3	PA	Metro Metals	6/23/1999
MW-C4	PA	Metro Metals	6/23/1999
MW-C5	PA	Metro Metals	12/5/2001
PA-C6	PA	Metro Metals	6/24/1999
PA-C7	PA	Metro Metals	6/24/1999
BH-N6	PA	Metro Metals	10/2/2000
BH-N7	PA	Metro Metals	10/2/2000
BH-N5A	PA	Naporano	8/25/1999
BH-N5B	PA	Naporano	8/27/1999
BH-N5C	PA	Naporano	8/27/1999
BH-N5D	PA	Naporano	8/27/1999
BH-N5F	PA	Naporano	8/11/2001
BH-N1	PA	Naporano	8/25/1999
MW-N2	PA	Naporano	8/27/1999
PA-C6-E1	PA	Metro Metals	12/3/2001
PA-C6-E2	PA	Metro Metals	12/5/2001
PA-C6-E3 ²	PA	Metro Metals	12/7/2001
PA-C6-E3A ²	PA	Metro Metals	12/11/2001
PA-C6-E4	PA	Metro Metals	12/11/2001
PA-C6-E5	PA	Metro Metals	4/29/2002
PA-C6-E6	PA	Metro Metals	4/29/2002

Table 1
Summary of Soil Sampling Program
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Location ID	Collected by	Site	Date
PA-C6-E7	PA	Metro Metals	4/29/2002
PA-C6-E8	PA	Metro Metals	4/29/2002
PA-C6-E9	PA	Metro Metals	5/16/2002
PA-C6-E10	PA	Metro Metals	5/16/2002
PA-C6-E11	PA	Metro Metals	5/16/2002
PA-C6-N1	PA	Metro Metals	12/3/2001
PA-C6-N2	PA	Metro Metals	12/5/2001
PA-C6-N3	PA	Metro Metals	12/7/2001
PA-C6-W1	PA	Metro Metals	12/3/2001
PA-C6-W2	PA	Metro Metals	12/5/2001
PA-C6-W3	PA	Metro Metals	12/7/2001
PA-C6-S1	PA	Metro Metals	12/3/2001
PA-C6-S2	PA	Metro Metals	12/5/2001
PA-C6-S3	PA	Metro Metals	12/7/2001
PA-C6-S4	PA	Metro Metals	12/11/2001
PA-C6-S5	PA	Metro Metals	4/29/2002
PA-C6-S5A	PA	Metro Metals	4/29/2002
PA-C6-S6	PA	Metro Metals	4/29/2002
PA-C6-S7	PA	Metro Metals	4/29/2002
PA-C7-N1	PA	Metro Metals	12/4/2001
PA-C7-S1	PA	Metro Metals	12/4/2001
PA-C7-E1	PA	Metro Metals	12/4/2001
PA-C7-W1	PA	Metro Metals	12/4/2001
BH-N1-N1	PA	Naporano	12/4/2001
BH-N1-W1	PA	Naporano	12/4/2001
BH-N1-S1	PA	Naporano	12/4/2001
BH-N1-E1	PA	Naporano	12/4/2001
MW-C5-N1	PA	Metro Metals	12/5/2001
MW-C5-W1	PA	Metro Metals	12/5/2001
MW-C5-S1	PA	Metro Metals	12/5/2001
MW-C5-E1	PA	Metro Metals	12/5/2001

Notes:

¹ - SB-4A and SB-4B from same location

² - PA-C6-E3 and PA-C6-E3A from same location.

Excel - Excel Environmental Resources, Inc.

PA - Port Authority

FIGURES

Newark, New Jersey

NJDEP: New Jersey Department of Environmental Protection
mg/kg: milligrams per kilogram, equivalent to parts per million
U: Not detected at the POL
J: Analyte detected below POL and/or estimated concentration
NA: Not Available
Shaded value exceeded the NJDEP residential soil cleanup criteria
Bolded value exceeded the NJDEP impact to ground water soil cleanup criteria

Table 5
Summary of Pesticides Soil Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft): Veritech Sample ID: Sampling Date: Units:	CAS Number	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	MW-C2 S-4 6-7 AA90328 6/25/1999 mg/kg	MW-C3 S-1 1.6-2.0 AA90435 6/23/1999 mg/kg	MW-C3 S-4 8-7 AA90438 6/23/1999 mg/kg	MW-C4 S-1 1.5-2.0 AA90437 6/23/1999 mg/kg	MW-C4 S-3 5-5.5 AA90438 6/23/1999 mg/kg	MW-C5 S-1 1-2 AA90531 6/24/1999 mg/kg	MW-C5 S-5 8-8.5 AA90532 6/24/1999 mg/kg	PA-C6 S-1 0-1 AA90533 6/24/1999 mg/kg	PA-C6 S-5 8-8.5 AA90534 6/24/1999 mg/kg	PA-C7 S-1 0-1 AA90535 6/24/1999 mg/kg	PA-C7 S-5 8-8.5 AA90538 6/24/1999 mg/kg	SH-N6 00.0-0.5 AB16065 10/2/2000 mg/kg	SH-N7 0.0-0.5 AB16068 10/2/2000 mg/kg
Aldrin	309-00-2	50	0.04	0.17	0.0035 U	0.0035 U	0.0037 U	0.078 U	0.0078 U	0.0035 U	0.0035 U	0.017 U	0.0078 U	0.0035 U	0.0034 U	0.071 U	0.18 U
Alpha-BHC	319-84-6	NA	NA	NA	0.0035 U	0.018 U	0.0037 U	0.078 U	0.0078 U	0.018 U	0.0035 U	0.017 U	0.0035 U	0.018 U	0.0034 U	NR	NR
Beta-BHC	319-85-7	NA	NA	NA	0.0035 U	0.018 U	0.0037 U	0.078 U	0.0078 U	0.018 U	0.0035 U	0.017 U	0.0035 U	0.018 U	0.0034 U	NR	NR
Chlordane	57-74-9	NA	NA	NA	0.0071 U	0.037 U	0.0073 U	0.16 U	0.016 U	0.036 U	0.0071 U	0.035 U	0.0071 U	0.035 U	0.0069 U	NR	NR
Delta-BHC	319-86-8	NA	NA	NA	0.0035 U	0.018 U	0.0037 U	0.078 U	0.0078 U	0.018 U	0.0035 U	0.017 U	0.0035 U	0.018 U	0.0034 U	NR	NR
Dieldrin	60-57-1	50	0.042	0.18	0.0035 U	0.018 U	0.0037 U	0.078 U	0.0078 U	0.02	0.0035 U	0.017 U	0.0035 U	0.018 U	0.0034 U	0.071 U	0.18 U
Endosulfan I	959-98-8	50	340	6200	0.0035 U	0.018 U	0.0037 U	0.078 U	0.0078 U	0.018 U	0.0035 U	0.017 U	0.0035 U	0.018 U	0.0034 U	NR	NR
Endosulfan II	33213-65-9	50	340	6200	0.0035 U	0.018 U	0.0037 U	0.078 U	0.0078 U	0.018 U	0.0035 U	0.017 U	0.0035 U	0.018 U	0.0034 U	NR	NR
Endosulfan Sulfate	1031-07-8	NA	NA	NA	0.0035 U	0.25	0.0037 U	0.078 U	0.0078 U	0.1	0.0035 U	0.017 U	0.0035 U	0.018 U	0.0034 U	NR	NR
Endrin	72-20-8	50	17	310	0.0035 U	0.018 U	0.0037 U	0.078 U	0.0078 U	0.018 U	0.0035 U	0.017 U	0.0035 U	0.018 U	0.0034 U	NR	NR
Endrin Aldehyde	7421-93-4	NA	NA	NA	0.0035 U	0.031	0.0037 U	0.41	0.0078 U	0.018 U	0.0035 U	0.017 U	0.0035 U	0.018 U	0.0034 U	NR	NR
Endrin Ketone	53494-70-5	NA	NA	NA	0.0035 U	0.018 U	0.0037 U	0.078 U	0.0078 U	0.018 U	0.0035 U	0.017 U	0.0035 U	0.018 U	0.0034 U	NR	NR
Gamma-BHC	58-89-9	NA	0.52	2.2	0.0035 U	0.075	0.0037 U	0.078 U	0.0078 U	0.041	0.0035 U	0.017 U	0.0035 U	0.018 U	0.0034 U	NR	NR
Heptachlor	76-44-8	50	0.15	0.65	0.0035 U	0.025	0.0037 U	0.078 U	0.0078 U	0.14	0.0035 U	0.017 U	0.0066	0.036	0.0034 U	0.071 U	0.18 U
Heptachlor Epoxide	1024-57-3	NA	NA	NA	0.0035 U	0.018 U	0.0037 U	0.078 U	0.0078 U	0.018 U	0.0035 U	0.017 U	0.0035 U	0.018 U	0.0034 U	NR	NR
Methoxychlor	72-43-5	50	280	5200	0.0035 U	0.018 U	0.0037 U	0.078 U	0.0078 U	0.018 U	0.0035 U	0.017 U	0.0035 U	0.018 U	0.0034 U	NR	NR
P,P'-DDD	72-54-8	50	3	12	0.0035 U	0.018 U	0.0037 U	0.078 U	0.011	0.018 U	0.0035 U	0.017 U	0.0035 U	0.018 U	0.0034 U	NR	NR
P,P'-DDE	72-55-9	50	2	9	0.0035 U	0.067	0.0037 U	1.6	0.036	0.048	0.0035 U	0.017 U	0.0035 U	0.027	0.0034 U	NR	NR
P,P'-DDT	50-29-3	500	2	9	0.0035 U	0.063	0.0037 U	1.4	0.034	0.033	0.0035 U	0.017 U	0.0035 U	0.018 U	0.0034 U	NR	NR
Toxaphene	8001-35-2	50	0.1	0.2	0.03 U	0.18 U	0.037 U	0.78 U	0.078 U	0.18 U	0.035 U	0.17 U	0.035 U	0.18 U	0.034 U	NR	NR

Notes:
 NJDEP - New Jersey Department of Environmental Protection
 mg/Kg - Milligrams per Kilograms, equivalent to parts per million
 U - Not detected at the PQL
 J - Analyte detected below PQL and/or estimated concentration
 NR - Analysis Not Requested
 Value exceeded the NJDEP residential soil cleanup criteria
 Value exceeded the NJDEP non-residential soil cleanup criteria
 Bolded value exceeded the NJDEP impact to ground water soil cleanup criteria

Table 5
Summary of Pesticides Soil Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Ventech Sample ID: Sampling Date: Units:	CAS Number	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	MW-N2 0.5-1.5 AA94324 8/27/1999 mg/kg	MW-N2 4.5-5.0 AA94325 8/27/1999 mg/kg	BH-N5F 0.5-2.0 AA94655 9/2/1999 mg/kg	BH-N5F 6.0-8.0 AA94656 9/2/1999 mg/kg	BH-N1 0.5-1.5 AA94149 9/25/1999 mg/kg	BH-N1 4.0-4.5 AA94150 9/25/1999 mg/kg	MW-C1 S-1 1.5-2.0 AA90433 6/23/1999 mg/kg	MW-C1 S-2 3-3.5 AA90434 6/23/1999 mg/kg	MW-C2 S-1 1-2 AA90327 6/22/1999 mg/kg
Aldrin	309-00-2	50	0.54	0.17	0.018 U	0.015	0.057 U	0.085 U	0.035 U	0.035 U	0.032	0.014	0.01 U
Alpha-BHC	319-84-6	NA	NA	NA	0.018 U	0.0035 U	0.035 U	0.0035 U	0.072 U	0.0035 U	0.0034 U	0.0035 U	0.01 U
Beta-BHC	319-85-7	NA	NA	NA	0.018 U	0.0035 U	0.035 U	0.0035 U	0.072 U	0.0035 U	0.0034 U	0.0035 U	0.01 U
Chlordane	57-74-9	NA	NA	NA	0.035 U	0.0069 U	0.069 U	0.0069 U	0.14 U	0.0069 U	0.0067 U	0.0071 U	0.03 U
Delta-BHC	319-86-8	NA	NA	NA	0.018 U	0.0035 U	0.035 U	0.0035 U	0.072 U	0.0035 U	0.0034 U	0.0035 U	0.01 U
Dieldrin	60-57-1	50	0.042	0.18	0.018 U	0.0035 U	0.035 U	0.036	0.072 U	0.0035 U	0.0034 U	0.0035 U	0.01 U
Endosulfan I	959-98-8	50	340	6200	0.018 U	0.0035 U	0.035 U	0.0035 U	0.072 U	0.0035 U	0.0034 U	0.0035 U	0.01 U
Endosulfan II	33213-65-9	50	340	6200	0.073	0.0081	0.035 U	0.016	0.3	0.0035 U	0.0034 U	0.0035 U	0.01 U
Endosulfan Sulfate	1031-07-8	NA	NA	NA	0.018 U	0.0035 U	0.035 U	0.0035 U	0.072 U	0.0035 U	0.0034 U	0.0035 U	0.01 U
Endrin	72-20-8	50	17	310	0.16	0.013	0.056	0.0035 U	0.072 U	0.0035 U	0.0034 U	0.0035 U	0.01 U
Endrin Aldehyde	7421-93-4	NA	NA	NA	0.018 U	0.0035 U	0.035 U	0.0035 U	0.072 U	0.0035 U	0.0041	0.0035 U	0.01 U
Endrin Ketone	53494-70-5	NA	NA	NA	0.018 U	0.0035 U	0.035 U	0.0035 U	0.072 U	0.0035 U	0.0062	0.0035 U	0.01 U
Gamma-BHC	58-89-9	NA	0.52	2.2	0.018 U	0.0035 U	0.035 U	0.021	0.072 U	0.0035 U	0.007	0.0035 U	0.01 U
Heptachlor	76-44-8	50	0.15	0.65	0.018 U	0.0035 U	0.035 U	0.0035 U	0.072 U	0.0035 U	0.023	0.0066	0.1
Heptachlor Epoxide	1024-57-3	NA	NA	NA	0.018 U	0.0035 U	0.035 U	0.0035 U	0.072 U	0.0035 U	0.0034 U	0.0035 U	0.01 U
Methoxychlor	72-43-5	50	280	5200	0.018 U	0.0035 U	0.035 U	0.0035 U	0.072 U	0.0035 U	0.0034 U	0.0035 U	0.29
P,P'-DDD	72-54-8	50	3	12	0.018 U	0.0035 U	0.035 U	0.0035 U	0.072 U	0.0035 U	0.0034 U	0.0035 U	0.01 U
P,P'-DDE	72-55-9	50	2	9	0.097	0.0035 U	0.035 U	0.0035 U	0.34	0.0035 U	0.0074	0.0035 U	0.01 U
P,P'-DDT	50-29-3	500	2	9	0.018 U	0.0035 U	0.035 U	0.0035 U	0.44	0.0035 U	0.0086	0.0035 U	0.01 U
Toxaphene	8001-35-2	50	0.1	0.2	0.18 U	0.035 U	0.35 U	0.035 U	0.72 U	0.035 U	0.034 U	0.035 U	0.19 U

Notes:
 NJDEP - New Jersey Department of Environmental Protection
 mg/Kg - Milligrams per Kilograms, equivalent to parts per million
 U - Not detected at the PQL
 J - Analyte detected below PQL and/or estimated concentration
 NR - Analysis Not Requested
 Value exceeded the NJDEP residential soil cleanup criteria
 Value exceeded the NJDEP non-residential soil cleanup criteria
 Bolded value exceeded the NJDEP impact to ground water soil cleanup criteria

Table 4
Summary of PCB Soil Sampling Results
Naporano Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Veritech Sample ID: Sampling Date: Units:	CAS Number	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SB-4A 1.0-1.5 1-1.5 AA90524 6/24/1999 mg/kg	SB-4A 5.5-6 5.5-6 AA90525 6/24/1999 mg/kg	SB-4B 0.5-1 0.5-1 AA90526 6/24/1999 mg/kg	SB-4B 5.5-6 5.5-6 AA90527 6/24/1999 mg/kg	BH-N6 00.0-0.5 AB16085 10/2/2000 mg/kg	BH-N7 0.0-0.5 AB16066 10/2/2000 mg/kg
Aroclor-1016	12674-11-2	50	0.49	2	0.035 U	0.034 U	0.37 U	0.035 U	0.035 U	0.18 U
Aroclor-1221	11104-28-2	50	0.49	2	0.035 U	0.034 U	0.37 U	0.035 U	NR	NR
Aroclor-1222	11141-16-5	50	0.49	2	0.035 U	0.034 U	0.37 U	0.035 U	NR	NR
Aroclor-1242	53469-21-9	50	0.49	2	0.035 U	0.034 U	0.37 U	0.035 U	NR	NR
Aroclor-1248	12672-29-8	50	0.49	2	0.96	0.034 U	0.37 U	0.035 U	0.035 U	0.18 U
Aroclor-1254	11097-69-1	50	0.49	2	0.48	0.034 U	0.37 U	0.035 U	0.74	0.18 U
Aroclor-1260	11095-82-5	50	0.49	2	0.035 U	0.034 U	0.37 U	0.035 U	0.035 U	0.18 U

Notes:

NJDEP - New Jersey Department of Environmental Protection

mg/Kg - Milligrams per Kilograms, equivalent to parts per million

U - Not detected at the PQL

J - Analyte detected below PQL and/or estimated concentration

NR - Analysis Not Requested

Value exceeded the NJDEP residential soil cleanup standard.

Value exceeded the NJDEP residential and non-residential soil cleanup standards.

Bolded value exceeded the NJDEP impact to groundwater cleanup standard.

Table 4
Summary of PCB Soil Sampling Results
Naporaño Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Veritech Sample ID: Sampling Date: Units:	CAS Number	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SB-5C 2-2.5 2-2.5 AA90516 6/23/1999 mg/kg	SB-5C 3.5-4 3.5-4 AA90517 6/23/1999 mg/kg	SB-5D 0-0.5 0-0.5 AA90528 6/25/1999 mg/kg	SB-5D 3.5-4 3.5-4 AA90529 6/25/1999 mg/kg	SB-5E 0.5-1 0.5-1 AA90518 6/23/1999 mg/kg	SB-5E 2.5-3 2.5-3 AA90519 6/23/1999 mg/kg	SB-5E 6-6.5 6-6.5 AA90520 6/23/1999 mg/kg	SB-5E 9.5-10 9.5-10 AA90521 6/23/1999 mg/kg
Aroclor-1016	12674-11-2	50	0.49	2	0.36 U	0.035 U	0.17 U	0.035 U	0.36 U	0.37 U	0.038 U	0.035 U
Aroclor-1221	11104-28-2	50	0.49	2	0.36 U	0.035 U	0.17 U	0.035 U	0.36 U	0.37 U	0.038 U	0.035 U
Aroclor-1232	11141-15-5	50	0.49	2	0.36 U	0.035 U	0.17 U	0.035 U	0.36 U	0.37 U	0.038 U	0.035 U
Aroclor-1242	53469-21-9	50	0.49	2	0.36 U	0.035 U	0.17 U	0.035 U	0.36 U	0.37 U	0.038 U	0.035 U
Aroclor-1248	12672-29-6	50	0.49	2	0.36 U	0.035 U	0.17 U	0.035 U	0.36 U	0.37 U	0.038 U	0.035 U
Aroclor-1254	11097-69-1	50	0.49	2	0.36 U	0.035 U	0.17 U	0.035 U	0.36 U	0.37 U	0.038 U	0.035 U
Aroclor-1260	11096-82-5	50	0.49	2	0.36 U	0.035 U	0.17 U	0.035 U	0.36 U	0.37 U	0.038 U	0.035 U

Notes

NJDEP - New Jersey Department of Environmental Protection

mg/Kg - Milligrams per Kilograms, equivalent to parts per million

U - Not detected at the PQL

J - Analyte detected below PQL and/or estimated concentration

NR - Analysis Not Requested

Value exceeded the NJDEP residential soil cleanup standard

Value exceeded the NJDEP residential and non-residential soil cleanup standards.

Bolded value exceeded the NJDEP impact to groundwater cleanup standard

Table 4
Summary of PCB Soil Sampling Results
Naporano Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Veritech Sample ID: Sampling Date: Units:	CAS Number	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	MW-N2 0.5-1.5 4.5-5.0 AA94325 8/27/1999 mg/kg	MW-N2 0.5-2.0 4.5-5.0 AA94325 8/27/1999 mg/kg	BH-N5F 0.5-2.0 4.5-5.0 AA94655 9/2/1999 mg/kg	BH-N5F 0.5-1.5 4.0-4.5 AA94150 8/25/1999 mg/kg	BH-N1 0.5-1.5 4.0-4.5 AA94150 8/25/1999 mg/kg	MW-C1 S-1 1.5-2.0 1.5-2.0 AA90433 6/23/1999 mg/kg	MW-C1 S-2 3-3.5 AA90434 6/23/1999 mg/kg	MW-C2 S-1 1-2 AA90327 6/22/1999 mg/kg	MW-C2 S-4 6-7 AA90328 6/25/1999 mg/kg	MW-C3 S-1 1.5-2.0 AA90436 8/23/1999 mg/kg	MW-C3 S-4 6-7 AA90436 6/23/1999 mg/kg
Arco-1016	12674-11-2	50	0.49	2	0.18 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.09 U	0.01 U	0.18 U	0.018 U
Arco-1221	11104-28-2	50	0.49	2	0.18 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.018 U	0.09 U	0.01 U	0.18 U	0.018 U
Arco-1232	11141-15-5	50	0.49	2	0.18 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.018 U	0.09 U	0.01 U	0.18 U	0.018 U
Arco-1242	53469-21-9	50	0.49	2	0.18 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.018 U	0.09 U	0.01 U	0.18 U	0.018 U
Arco-1248	12672-25-5	50	0.49	2	0.18 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.018 U	0.09 U	0.01 U	0.18 U	0.018 U
Arco-1254	11097-69-1	50	0.49	2	0.18 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.018 U	0.09 U	0.01 U	0.18 U	0.018 U
Arco-1260	11096-82-5	50	0.49	2	0.18 U	0.017 U	0.017 U	0.017 U	0.017 U	0.017 U	0.018 U	0.09 U	0.01 U	0.18 U	0.018 U

Notes:
NJDEP - New Jersey Department of Environmental Protection
mg/Kg - Milligrams per Kilograms, equivalent to parts per million
U - Not detected at the PQL
J - Analysis detected below PQL and/or estimated concentration
NR - Analysis Not Requested
Value exceeded the NJDEP residential soil cleanup standard.
Value exceeded the NJDEP residential and non-residential soil cleanup standards
Bolted value exceeded the NJDEP impact to groundwater cleanup standard.

Table 4
Summary of PCB Soil Sampling Results
Naporano Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Veritech Sample ID: Sampling Date: Units:	CAS Number	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	MW-C4 S-1 1.5-2.0 AA90437 6/23/1999 mg/kg	MW-C4 S-3 5-5.5 AA90438 6/23/1999 mg/kg	MW-C5 S-1 1-2 AA90531 6/24/1999 mg/kg	MW-C5 S-5 8-8.5 AA90532 6/24/1999 mg/kg	PA-C6 S-1 0-1 AA90533 6/24/1999 mg/kg	PA-C6 S-5 8-8.5 AA90534 6/24/1999 mg/kg	PA-C7 S-1 0-1 AA90535 6/24/1999 mg/kg	PA-C7 S-5 8-8.5 AA90536 6/24/1999 mg/kg	SB1 2-2.5 2-2.5 AA90503 6/23/1999 mg/kg	SB1 0.5-1 0.5-1 AA90504 6/23/1999 mg/kg	SB2 1-1.5 1-1.5 AA90505 6/23/1999 mg/kg	SB2 3-3.5 3-3.5 AA90506 6/23/1999 mg/kg
Aroclor-1016	12674-11-2	50	0.49	2	0.019 U	0.019 U	0.18 U	0.018 U	0.017 U	0.018 U	0.018 U	0.017 U	0.035 U	0.035 U	0.035 U	0.035 U
Aroclor-1221	11104-28-2	50	0.49	2	0.019 U	0.019 U	0.18 U	0.018 U	0.017 U	0.018 U	0.018 U	0.017 U	0.035 U	0.035 U	0.035 U	0.035 U
Aroclor-1232	11141-15-5	50	0.49	2	0.019 U	0.019 U	0.18 U	0.018 U	0.017 U	0.018 U	0.018 U	0.017 U	0.035 U	0.035 U	0.035 U	0.035 U
Aroclor-1242	53469-21-9	50	0.49	2	0.019 U	0.019 U	0.18 U	0.018 U	0.017 U	0.018 U	0.018 U	0.017 U	0.035 U	0.035 U	0.035 U	0.035 U
Aroclor-1248	12672-29-6	50	0.49	2	0.019 U	0.019 U	0.18 U	0.018 U	0.017 U	0.12	0.017 U	0.017 U	0.035 U	0.035 U	0.035 U	0.035 U
Aroclor-1254	11097-69-1	50	0.49	2	0.019 U	0.019 U	0.18 U	0.018 U	0.017 U	0.018 U	0.017 U	0.017 U	0.035 U	0.035 U	0.035 U	0.035 U
Aroclor-1260	11096-82-5	50	0.49	2	0.019 U	0.019 U	0.18 U	0.018 U	0.017 U	0.018 U	0.018 U	0.017 U	0.035 U	0.035 U	0.035 U	0.035 U

Notes:

NJDEP - New Jersey Department of Environmental Protection

mg/Kg - Milligrams per Kilograms, equivalent to parts per million

U - Not detected at the PQL

J - Analyte detected below PQL and/or estimated concentration

NR - Analysis Not Requested

0.019 U Value exceeded the NJDEP residential soil cleanup standard.

0.019 U Value exceeded the NJDEP residential and non-residential soil cleanup standards

0.12 Value exceeded the NJDEP impact to groundwater cleanup standard.

Table 4
Summary of PCB Soil Sampling Results
Naporano Nau Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft): Veritech Sample ID: Sampling Date: Units:	CAS Number	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SB3 1-1.5 1-1.5 AA90507 6/23/1999 mg/kg	SB3 3-3.5 3-3.5 AA90508 6/23/1999 mg/kg	SB-5A 0-0.5 0-0.5 AA90509 6/23/1999 mg/kg	SB-5A 1.5-2 1.5-2 AA90510 6/23/1999 mg/kg	SB-5A 2.5-3 2.5-3 AA90511 6/23/1999 mg/kg	SB-5A 6.5-7 6.5-7 AA90512 6/23/1999 mg/kg	SB-5B 0-0.5 0-0.5 AA90513 6/23/1999 mg/kg	SB-5B 2.5-3 2.5-3 AA90514 6/23/1999 mg/kg	SB-5B 7-7.5 7-7.5 AA90515 6/23/1999 mg/kg
Aroclor-1016	12674-11-2	50	0.49	2	0.034 U	0.035 U	0.18 U	0.18 U	0.034 U	0.036 U	0.36 U	0.38 U	0.035 U
Aroclor-1221	11104-28-2	50	0.49	2	0.034 U	0.035 U	0.18 U	0.18 U	0.034 U	0.036 U	0.36 U	0.38 U	0.035 U
Aroclor-1232	11141-16-5	50	0.49	2	0.034 U	0.035 U	0.18 U	0.18 U	0.034 U	0.036 U	0.36 U	0.38 U	0.035 U
Aroclor-1242	53499-21-9	50	0.49	2	0.034 U	0.035 U	0.18 U	0.18 U	0.034 U	0.036 U	0.36 U	0.38 U	0.035 U
Aroclor-1248	12672-29-6	50	0.49	2	0.034 U	0.035 U	0.18 U	0.18 U	0.034 U	0.036 U	0.36 U	0.38 U	0.035 U
Aroclor-1254	11097-69-1	50	0.49	2	0.034 U	0.035 U	0.18 U	0.18 U	0.034 U	0.036 U	0.36 U	0.38 U	0.035 U
Aroclor-1260	11096-82-5	50	0.49	2	0.034 U	0.035 U	0.18 U	0.18 U	0.034 U	0.036 U	0.36 U	0.38 U	0.035 U

Notes:

NJDEP - New Jersey Department of Environmental Protection

mg/Kg - Milligrams per Kilograms, equivalent to parts per million

U - Not detected at the PQL

J - Analyte detected below PQL and/or estimated concentration

NR - Analysis Not Requested

Value exceeded the NJDEP residential soil cleanup standard

Value exceeded the NJDEP residential and non-residential soil cleanup standards

Bolded value exceeded the NJDEP impact to groundwater cleanup standard

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Notes:
NUDEP = New Jersey Department of Environmental Protection
Mg/Kg = Milligrams per Kilogram, equivalent to parts per million
U = Not detected at the POL
J = Analyte detected below POL and/or estimated concentration
NR = Analyte not requested
Value exceeded the NUDEP residential soil cleanup criteria.
Value exceeded the NUDEP non-residential soil cleanup criteria.

Table 3
Summary of Semivolatile Organic Compounds Soil Sampling Results
Napotano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Vessel Sample ID: Sampling Date:	CAS	NIEP Impact to Groundwater Soil Cleanup	NIEP Direct Contact Soil Cleanup Criteria	Non-Residual Direct Contact Soil Cleanup Criteria	SB-5C 3.3-4 AS90137 6/23/1999	SB-5D 0.6-5 AS90137 6/23/1999	SB-5E 3.3-4 AS90137 6/23/1999	SB-5F 0.6-5 AS90137 6/23/1999	SB-5G 2.3-3 AS90137 6/23/1999	SB-5H 4.4-6 AS90137 6/23/1999	SB-5I 5.0-10 AS90137 6/23/1999	SB-5J 10.1-15 AS90137 6/23/1999	SB-5K 15.1-55 AS90137 6/23/1999	SB-5L 0.1-1 AS90137 6/23/1999	SB-5M 5.6-6 AS90137 6/23/1999	SB-5N 0.1-1 AS90137 6/23/1999	SB-5O 5.6-6 AS90137 6/23/1999	SB-5P 0.1-1 AS90137 6/23/1999	SB-5Q 5.6-6 AS90137 6/23/1999	SB-5R 0.1-1 AS90137 6/23/1999	SB-5S 0.1-1 AS90137 6/23/1999	SB-5T 0.1-1 AS90137 6/23/1999	SB-5U 0.1-1 AS90137 6/23/1999	SB-5V 0.1-1 AS90137 6/23/1999	SB-5W 0.1-1 AS90137 6/23/1999	SB-5X 0.1-1 AS90137 6/23/1999	SB-5Y 0.1-1 AS90137 6/23/1999	SB-5Z 0.1-1 AS90137 6/23/1999	SB-5AA 0.1-1 AS90137 6/23/1999	SB-5AB 0.1-1 AS90137 6/23/1999	SB-5AC 0.1-1 AS90137 6/23/1999	SB-5AD 0.1-1 AS90137 6/23/1999	SB-5AE 0.1-1 AS90137 6/23/1999	SB-5AF 0.1-1 AS90137 6/23/1999	SB-5AG 0.1-1 AS90137 6/23/1999	SB-5AH 0.1-1 AS90137 6/23/1999	SB-5AI 0.1-1 AS90137 6/23/1999	SB-5AJ 0.1-1 AS90137 6/23/1999	SB-5AK 0.1-1 AS90137 6/23/1999	SB-5AL 0.1-1 AS90137 6/23/1999	SB-5AM 0.1-1 AS90137 6/23/1999	SB-5AN 0.1-1 AS90137 6/23/1999	SB-5AO 0.1-1 AS90137 6/23/1999	SB-5AP 0.1-1 AS90137 6/23/1999	SB-5AQ 0.1-1 AS90137 6/23/1999	SB-5AR 0.1-1 AS90137 6/23/1999	SB-5AS 0.1-1 AS90137 6/23/1999	SB-5AT 0.1-1 AS90137 6/23/1999	SB-5AU 0.1-1 AS90137 6/23/1999	SB-5AV 0.1-1 AS90137 6/23/1999	SB-5AW 0.1-1 AS90137 6/23/1999	SB-5AX 0.1-1 AS90137 6/23/1999	SB-5AY 0.1-1 AS90137 6/23/1999	SB-5AZ 0.1-1 AS90137 6/23/1999	SB-5BA 0.1-1 AS90137 6/23/1999	SB-5BB 0.1-1 AS90137 6/23/1999	SB-5BC 0.1-1 AS90137 6/23/1999	SB-5BD 0.1-1 AS90137 6/23/1999	SB-5BE 0.1-1 AS90137 6/23/1999	SB-5BF 0.1-1 AS90137 6/23/1999	SB-5BG 0.1-1 AS90137 6/23/1999	SB-5BH 0.1-1 AS90137 6/23/1999	SB-5BI 0.1-1 AS90137 6/23/1999	SB-5BJ 0.1-1 AS90137 6/23/1999	SB-5BK 0.1-1 AS90137 6/23/1999	SB-5BL 0.1-1 AS90137 6/23/1999	SB-5BM 0.1-1 AS90137 6/23/1999	SB-5BN 0.1-1 AS90137 6/23/1999	SB-5BO 0.1-1 AS90137 6/23/1999	SB-5BP 0.1-1 AS90137 6/23/1999	SB-5BQ 0.1-1 AS90137 6/23/1999	SB-5BR 0.1-1 AS90137 6/23/1999	SB-5BS 0.1-1 AS90137 6/23/1999	SB-5BT 0.1-1 AS90137 6/23/1999	SB-5BU 0.1-1 AS90137 6/23/1999	SB-5BV 0.1-1 AS90137 6/23/1999	SB-5BW 0.1-1 AS90137 6/23/1999	SB-5BX 0.1-1 AS90137 6/23/1999	SB-5BY 0.1-1 AS90137 6/23/1999	SB-5BZ 0.1-1 AS90137 6/23/1999	SB-5CA 0.1-1 AS90137 6/23/1999	SB-5CB 0.1-1 AS90137 6/23/1999	SB-5CC 0.1-1 AS90137 6/23/1999	SB-5CD 0.1-1 AS90137 6/23/1999	SB-5CE 0.1-1 AS90137 6/23/1999	SB-5CF 0.1-1 AS90137 6/23/1999	SB-5CG 0.1-1 AS90137 6/23/1999	SB-5CH 0.1-1 AS90137 6/23/1999	SB-5CI 0.1-1 AS90137 6/23/1999	SB-5CJ 0.1-1 AS90137 6/23/1999	SB-5CK 0.1-1 AS90137 6/23/1999	SB-5CL 0.1-1 AS90137 6/23/1999	SB-5CM 0.1-1 AS90137 6/23/1999	SB-5CN 0.1-1 AS90137 6/23/1999	SB-5CO 0.1-1 AS90137 6/23/1999	SB-5CP 0.1-1 AS90137 6/23/1999	SB-5CQ 0.1-1 AS90137 6/23/1999	SB-5CR 0.1-1 AS90137 6/23/1999	SB-5CS 0.1-1 AS90137 6/23/1999	SB-5CT 0.1-1 AS90137 6/23/1999	SB-5CU 0.1-1 AS90137 6/23/1999	SB-5CV 0.1-1 AS90137 6/23/1999	SB-5CW 0.1-1 AS90137 6/23/1999	SB-5CX 0.1-1 AS90137 6/23/1999	SB-5CY 0.1-1 AS90137 6/23/1999	SB-5CZ 0.1-1 AS90137 6/23/1999	SB-5DA 0.1-1 AS90137 6/23/1999	SB-5DB 0.1-1 AS90137 6/23/1999	SB-5DC 0.1-1 AS90137 6/23/1999	SB-5DD 0.1-1 AS90137 6/23/1999	SB-5DE 0.1-1 AS90137 6/23/1999	SB-5DF 0.1-1 AS90137 6/23/1999	SB-5DG 0.1-1 AS90137 6/23/1999	SB-5DH 0.1-1 AS90137 6/23/1999	SB-5DI 0.1-1 AS90137 6/23/1999	SB-5DJ 0.1-1 AS90137 6/23/1999	SB-5DK 0.1-1 AS90137 6/23/1999	SB-5DL 0.1-1 AS90137 6/23/1999	SB-5DM 0.1-1 AS90137 6/23/1999	SB-5DN 0.1-1 AS90137 6/23/1999	SB-5DO 0.1-1 AS90137 6/23/1999	SB-5DP 0.1-1 AS90137
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NIDES - New Jersey Department of Environmental Protection
 mg/kg - Milligrams per Kilogram, equivalent to parts per million
 U - Not detected at the PQL
 A - Analyte detected below PQL, and/or estimated concentration
 NR - Analysis not requested
 Value exceeded the NIDES residential soil cleanup criteria
 Value exceeded the NIDES non-residential soil cleanup criteria

Table 3

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
Downloaded from WWW.FMC.GOV on Tuesday, May 22, 2018

Table 3

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2011
Downloaded from WWW.FMC.GOV on Tuesday, May 22, 2018

Table 2
Summary of Volatile Organic Compounds Soil Sampling Results
Napozano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Sample ID Sample Depth (ft) Verdict Sample ID Sampling Date	CAS Number	MLDEP Impactive Groundwater Soil Cleanup Criteria mg/kg	MLDEP Reactive Direct Contact Soil Cleanup Criteria mg/kg	MLDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SB-48 6.1 AA0047 6/24/1999 mg/kg	SB-48 6.4 AA0047 6/24/1999 mg/kg	TS-623 NA 6/24/1999 mg/kg	TS-624 NA 6/24/1999 mg/kg	TS-625 NA 6/24/1999 mg/kg	PA-C-E-01 AA0047 4/29/2002 mg/kg	PA-C-E-02 AA0047 4/29/2002 mg/kg	PA-C-E-03 AA0047 4/29/2002 mg/kg
1,1,1-Trichloroethane	71-55-6	50	210	1000	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
1,1,2-Trichloroethane	72-34-3	1	24	100	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
1,1,2,2-Tetrachloroethane	72-34-3	1	24	100	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
1,1-Dichloroethane	75-34-3	10	50	1000	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
1,2-Dichloroethane	75-34-3	10	50	1000	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
1,2-Dichlorobenzene	95-50-1	50	5100	10000	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
1,3-Dichlorobenzene	107-06-2	1	6	24	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
1,3-Dichloropropane	78-37-5	NA	10	43	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
1,4-Dichlorobenzene	541-73-1	100	5100	10000	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	106-46-7	100	5100	10000	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	78-33-3	50	1000	1000	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	110-75-8	NA	NA	NA	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	591-78-6	NA	NA	NA	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	106-10-1	50	1000	1000	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	67-44-1	50	1000	1000	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	67-44-1	NA	NA	NA	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	103-55-1	1	1	2	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	71-43-2	1	1	2	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	75-27-4	1	1	2	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	75-25-2	1	1	2	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	74-83-9	1	1	2	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	75-15-0	NA	NA	NA	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	56-23-5	1	2	4	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	108-90-7	1	37	80	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	75-00-3	NA	NA	NA	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	67-66-3	1	19	28	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	74-87-3	10	520	1000	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	136-35-2	1	78	1000	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	106-10-1	1	4	5	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	110-75-8	NA	NA	NA	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	67-44-1	110	1000	1000	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	103-55-1	100	1000	1000	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	103-55-1	87	1000	1000	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	163-40-4	NA	NA	NA	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	75-08-2	87	43	210	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	95-47-6	87	43	210	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	100-42-5	100	23	87	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	75-55-0	NA	NA	NA	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	127-10-4	1	4	6	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	108-88-3	500	1000	1000	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	156-80-5	50	1000	1000	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	106-10-1	1	4	5	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	75-01-6	1	23	54	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	75-89-4	NA	NA	NA	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	108-05-4	NA	NA	NA	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U
2-Chlorobenzene	75-01-6	10	2	7	0.64 U	0.56 U	0.63 U	0.63 U	0.63 U	0.0066 U	0.0063 U	0.0064 U

LEGEND

MLDEP New Jersey Department of Environmental Protection
mg/kg Milligrams per Kilogram, equivalent to parts per million
U Not detected at the PQL
NA Not Available
Standard value exceeded the MLDEP residential soil cleanup criteria
Bracket value exceeded the MLDEP impact to ground water and cleanup criteria

SECRET

LEGEND

NIDEP New Jersey Department of Environmental Protection
mg/kg Muldepans per Kilograms, equivalent to parts per million
U in released at the PCL
U Analytes detected below PCL and/or estimated concentration
NA Not Available

Shaded value exceeded the NIDEP residential soil cleanup criteria
Bordered value exceeded the NIDEP impact to ground water soil cleanup criteria

NJDEP New Jersey Department of Environmental Protection
mg/kg Milligrams per kilogram, equivalent to parts per million
U Not detected at the POL
J Analyte detected below POL, and/or estimated concentration
NA Not Available
Shaded value exceeded the NJDEP residential and cleanup criteria
Bolted value exceeded the NJDEP impact to ground water and cleanup criteria

Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Vegetation Species Sample Date	CAS	NLOE Impact to Groundwater Soil Cleanup Criteria	NLOE Direct Contact Soil Cleanup Criteria	NLOE Non Residential Direct Contact Soil Cleanup Criteria	MW-C3-S-1 AA90435 6/23/1989	MW-C3-S-4 AA90435 6/23/1989	MW-C4-S-1 AA90437 6/23/1989	MW-C4-S-3 AA90438 6/23/1989	MW-C5-S-1 AA90439 6/24/1989	MW-C5-S-5 AA90432 6/24/1989	PAC-3-S-1 AA90433 6/24/1989	PAC-5-S-5 AA90434 6/24/1989	PAC-7-S-1 AA90435 6/24/1989	PAC-7-S-5 AA90436 6/24/1989	TB 6/22 AA90437	TB 6/23 AA90438
1.1-Triechlorobenzene	71-55-6	50	210	1000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
1.2.2-Triechlorobenzene	78-34-5	1	34	70	0.68 U	0.67 U	0.68 U	0.68 U	0.57 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
1.2.1-Trichlorobenzene	78-00-5	1	32	420	0.67 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
1-Dichlorobenzene	78-34-5	10	570	1000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
1,2-Dichlorobenzene	78-35-4	50	5700	10000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
1,3-Dichlorobenzene	55-50-1	10	570	10000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
1,4-Dichlorobenzene	106-86-4	NA	10	43	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
1,2-Dichloroethane	106-86-4	100	5700	10000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
1,3-Dichloroethane	541-72-1	100	5700	10000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
1,4-Dichloroethane	106-86-7	50	1000	1000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Benzene	78-83-3	NA	NA	1000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Chlorobenzene	110-7-6	NA	NA	1000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Hexachlorocyclopentadiene	591-78-5	NA	NA	NA	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Heptachlorocyclopentadiene	591-78-5	NA	NA	NA	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Heptachlorocyclopentadiene	100-10-1	NA	NA	1000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Ketone	67-64-1	100	1000	1000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-02-8	NA	NA	NA	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	5	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	13	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	45	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	100	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	10000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	100000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	10000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	100000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	10000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	100000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	10000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	100000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	10000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	100000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	10000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	100000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	10000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	100000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	10000000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	100000000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000000000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	10000000000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	100000000000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000000000000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	10000000000000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	100000000000000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000000000000000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	10000000000000000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	100000000000000000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000000000000000000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	10000000000000000000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	100000000000000000000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000000000000000000000000000000000000000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	100	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	100	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	100	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	100	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000	0.68 U	0.67 U	0.68 U	0.68 U	0.59 U	0.62 U	0.57 U	0.6 U	0.61 U	0.57 U	0.63 U	0.63 U
Carbon	107-13-1	1	1	1000												

NJDEP New Jersey Department of Environmental Protection
 mg/L Milligrams per Liter, equivalent to parts per million
 U Not detected at the POL
 J Analyte detected below POL, and/or estimated concentration
 NA Not available
 Standard value exceeded the NJDEP residential soil cleanup criteria
 Biotic value exceeded the NJDEP "upland to ground water" soil cleanup criteria

Table 6
Summary of Inorganic Soil Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft): Veritech Sample ID: Sampling Date:	CAS Number	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	MW-N2 0.5-1.5 AA94324 8/27/1999 mg/kg	MW-N2 4.5-5.0 AA94325 8/27/1999 mg/kg	BH-N5F 0.5-2.0 AA94655 9/2/1999 mg/kg	BH-N5F 6.0-8.0 AA94656 9/2/1999 mg/kg	BH-N1 0.5-1.5 AA94149 8/25/1999 mg/kg	BH-N1 4.0-4.5 AA94150 8/25/1999 mg/kg	MW-C1 S-1 1.5-2.0 AA90433 6/23/1999 mg/kg	MW-C1 S-2 3-3.5 AA90434 6/23/1999 mg/kg	MW-C2 S-1 1-2 AA90327 6/22/1999 mg/kg	MW-C2 S-4 6-7 AA90328 6/25/1999 mg/kg	MW-C3 S-1 1.5-2.0 AA90435 6/23/1999 mg/kg	MW-C3 S-4 6-7 AA90436 6/23/1999 mg/kg
Antimony	7440-36-0	NA	14	340	9.2	1.4 U	1.4 U	1.4 U	22	1.4 U	1.3 U	1.4 U	5.2	1.4 U	1.4 U	1.4 U
Arsenic	7440-38-2	NA	20	20	2 U	2 U	3.1	2 U	14	2 U	1.9	2 U	14	2 U	10	2.5
Barium	7440-39-3	NA	700	47000	180	6.5	100	20	420	9.7	12	6	240	9.3	340	6.2 U
Beryllium	7440-41-7	NA	2	2	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U	0.2 U	0.19 U	0.2 U	0.2 U
Cadmium	7440-43-9	NA	30	100	21	0.31 U	1.2	0.31 U	22	0.31 U	0.3 U	0.32 U	6.4	0.32 U	12	0.33 U
Chromium	7440-47-3	NA	500	500	220	3.9	37	13	150	7	7.4	4.8	130	9.9	190	5.5
Copper	7440-50-8	NA	600	600	680	5.9	100	28	600	8.5	24	8.3	430	6.1	490	7.9
Lead	7439-92-1	NA	400	600	600	15	410	60	3600	22	30	11	570	7.9	1400	3.1
Mercury	7439-97-6	NA	14	270	3.7	0.11	1.4	0.17	10	0.034 U	0.055	0.084	0.47	0.03 U	3.7	0.033 U
Nickel	7440-02-0	NA	250	2400	120	4.3	33	30	430	8	10	5.5	110	11	180	6.4
Selenium	7782-49-2	NA	63	3100	2.9 U	2.8 U	2.8 U	2.8 U	2.9 U	2.8 U	2.7 U	2.9 U	3 U	2.9 U	3 U	3 U
Silver	7440-22-4	NA	110	4100	1.3 U	1.2 U	1.2 U	1.2 U	1.9	1.2 U	1.2 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Thallium	7440-28-0	NA	2	2	1.1 U	1 U	1 U	1 U	1.1 U	1 U	1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Zinc	7440-66-6	NA	1500	1500	1100	35	410	110	3900	26	94	83	1300	19	1700	20 U
Cyanide	57-12-5	NA	1100	21000	0.27 U	0.26 U	0.26 U	0.26 U	0.27 U	0.26 U	0.26 U	9.7	0.28 U	0.27 U	7.7	9.7
Phenol	103-95-2	50	10000	10000	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.4 U	1.3 U	1.4 U	1.4
ids		NA	NA	NA	93	96	96	96	93	96	99	94	88	94	91	9

NJDEP - New Jersey Department of Environmental Protection
mg/Kg - Milligrams per Kilograms, equivalent to parts per million
U - Not detected at the PQL
J - Analyte detected below PQL and/or estimated concentration
NA Not Available
NR - Analysis Not Requested
Value exceeded the NJDEP residential soil cleanup criteria
Value exceeded the NJDEP non-residential soil cleanup criteria

Table 6
Summary of Inorganic Soil Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Veritech Sample ID: Sampling Date: Units:	CAS Number	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SB-4A 1.0-1.5 1-1.5 AA90524 6/24/1999 mg/kg	SB-4A 5.5-6 5.5-6 AA90525 6/24/1999 mg/kg	SB-4B 0.5-1 0.5-1 AA90526 6/24/1999 mg/kg	SB-4B 5.5-6 5.5-6 AA90527 6/24/1999 mg/kg	SB-4B 5.5-6 5.5-6 AA90527 6/24/1999 mg/kg	SB-4B 5.5-6 5.5-6 AA90527 6/24/1999 mg/kg
Antimony	7440-36-0	NA	14	340	1.7	1.3 U	1.6 U	1.4 U	NR	NR
Arsenic	7440-38-2	NA	20	20	3	1.9 U	14	2 U	NR	NR
Barium	7440-39-3	NA	700	47000	46	6	520	5.8 U	NR	NR
Beryllium	7440-41-7	NA	2	2	0.19 U	0.18 U	0.2 U	0.19 U	NR	NR
Cadmium	7440-43-9	NA	39	100	0.93	0.31 U	14	0.31 U	NR	NR
Chromium	7440-47-3	NA	500	500	25	4.8	590	3.3	NR	NR
Copper	7440-50-8	NA	600	600	230	4.6	200	3.1 U	NR	NR
Lead	7439-92-1	NA	400	600	120	16	1800	3.1	110	600
Mercury	7439-97-6	NA	14	270	0.53	0.03 U	5.8	0.031 U	NR	NR
Nickel	7440-02-0	NA	250	2400	22	5.6	600	4	NR	NR
Selenium	7782-49-2	NA	63	3100	2.9 U	2.8 U	3 U	2.8 U	NR	NR
Silver	7440-22-4	NA	110	4100	1.3 U	1.2 U	1.3 U	1.2 U	NR	NR
Thallium	7440-28-0	NA	2	2	1.1 U	1 U	1.1 U	1 U	NR	NR
Zinc	7440-66-6	NA	1500	1500	170	47	2000	19 U	NR	NR
Cyanide	57-12-5	NA	1100	21000	NA	NA	NA	NA	NR	NR
Phenol	103-95-2	50	10000	10000	NA	NA	NA	NA	NR	NR
% Solids	-	NA	NA	NA	NA	NA	NA	NA	NR	NR

Notes:

NJDEP - New Jersey Department of Environmental Protection

mg/Kg - Milligrams per Kilograms, equivalent to parts per million

U - Not detected at the PQL

J - Analyte detected below PQL and/or estimated concentration

NA - Not Available

NR - Analysis Not Requested

Value exceeded the NJDEP residential soil cleanup criteria

Value exceeded the NJDEP non-residential soil cleanup criteria

Table 6
Summary of Inorganic Soil Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft): Veritech Sample ID: Sampling Date: Units:	CAS Number	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SB-5B 2.5-3 2.5-3 AA90514 6/23/1999 mg/kg	SB-5B 7.7-5 7.7-5 AA90515 6/23/1999 mg/kg	SB-5C 2-2.5 2-2.5 AA90516 6/23/1999 mg/kg	SB-5C 3.5-4 3.5-4 AA90517 6/23/1999 mg/kg	SB-5D 0-0.5 0-0.5 AA90528 6/25/1999 mg/kg	SB-5D 3.5-4 3.5-4 AA90529 6/25/1999 mg/kg	SB-5E 0.5-1 0.5-1 AA90518 6/23/1999 mg/kg	SB-5E 2.5-3 2.5-3 AA90519 6/23/1999 mg/kg	SB-5E 6-6.6 6-6.6 AA90520 6/23/1999 mg/kg	SB-5E 9.5-10 9.5-10 AA90521 6/23/1999 mg/kg
Antimony	7440-38-0	NA	14	340	16	1.4 U	100	1.4 U	8.6	2.8	17	12	3.1	1.4 U
Arsenic	7440-38-2	NA	20	20	23	2 U	27	2 U	11	3.4	8.9	13	2.6	2 U
Barium	7440-39-3	NA	700	47000	320	6 U	400	6 U	210	48	250	330	34	5.8 U
Beryllium	7440-41-7	NA	2	2	0.2 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.2 U	0.18 U	0.19 U
Cadmium	7440-43-9	NA	39	100	28	0.32 U	40	0.32 U	9.5	0.67	12	12	1	0.31 U
Chromium	7440-47-3	NA	500	500	250	3.3	290	2.5	230	67	1100	110	16	2.9
Copper	7440-50-8	NA	600	600	700	3.4	2800	6.7	440	120	530	610	130	3.1 U
Lead	7439-92-1	NA	400	600	2800	3.8	4900	10	730	130	820	1500	460	2.2 U
Mercury	7439-97-6	NA	14	270	3.3	0.032 U	2.5	0.044	2.2	0.49	2.5	4.4	0.049	0.031 U
Nickel	7440-02-0	NA	250	2400	220	3.6	1900	5.4	150	65	630	150	29	3.8
Selenium	7782-49-2	NA	53	3100	3.1 U	2.9 U	2.9 U	2.9 U	2.8 U	2.8 U	2.9 U	3 U	2.8 U	2.8 U
Silver	7440-22-4	NA	110	4100	1.4 U	1.3 U	1.3 U	1.3 U	1.2 U	1.2 U	1.3 U	1.3 U	1.2 U	1.2 U
Thallium	7440-28-0	NA	2	2	1.1 U	1.1 U	1.1 U	1.1 U	1 U	1 U	1.1 U	1.1 U	1 U	1 U
Zinc	7440-66-6	NA	1500	1500	2100	56	6400	77	1500	340	1800	1800	310	19 U
Cyanide	57-12-5	NA	1100	21000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	103-95-2	50	10000	10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
% Solids	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes.

NJDEP - New Jersey Department of Environmental Protection
mg/Kg - Milligrams per Kilograms, equivalent to parts per million
U - Not detected at the PQL
J - Analyte detected below PQL and/or estimated concentration
NA - Not Available
NR - Analysis Not Requested
Value exceeded the NJDEP residential soil cleanup criteria
Value exceeded the NJDEP non-residential soil cleanup criteria

Table 6
Summary of Inorganic Soil Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Veritech Sample ID: Sampling Date: Units:	CAS Number	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SB1 2-2.5 2-2.5 AA90503 6/23/1999 mg/kg	SB1 0.5-1 0.5-1 AA90504 6/23/1999 mg/kg	SB2 1-1.5 1-1.5 AA90505 6/23/1999 mg/kg	SB2 3-3.5 3-3.5 AA90506 6/23/1999 mg/kg	SB3 1-1.5 1-1.5 AA90507 6/23/1999 mg/kg	SB3 3-3.5 3-3.5 AA90508 6/23/1999 mg/kg	SB-5A 0-0.5 0-0.5 AA90509 6/23/1999 mg/kg	SB-5A 1.5-2 1.5-2 AA90510 6/23/1999 mg/kg	SB-5A 2.5-3 2.5-3 AA90511 6/23/1999 mg/kg	SB-5A 6.5-7 6.5-7 AA90512 6/23/1999 mg/kg	SB-5B 0-0.5 0-0.5 AA90513 6/23/1999 mg/kg
Antimony	7440-36-0	NA	14	340	14 U	3	14 U	14 U	13 U	14 U	3.9	5.5	13 U	14 U	14 U
Arsenic	7440-38-2	NA	20	20	2 U	5.5	2 U	2 U	1.9 U	2 U	6.6	7.2	1.9 U	2 U	10
Barium	7440-39-3	NA	700	47000	15	100	48	18	41	6.4	170	180	10	82	410
Beryllium	7440-41-7	NA	2	2	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U	0.2 U
Cadmium	7440-43-9	NA	39	100	0.31 U	3	0.31 U	0.31 U	0.31 U	0.31 U	4.1	5.4	0.31 U	0.32 U	20
Chromium	7440-47-3	NA	500	500	9	65	25	77	20	31	53	80	5.5	4.5	170
Copper	7440-50-8	NA	600	600	11	250	39	76	44	3.1 U	200	210	6.2	5.1	1690
Lead	7439-92-1	NA	400	600	68	340	3.1	5.8	72	2.2 U	1200	650	2.8	3.3	1800
Mercury	7439-97-6	NA	14	270	0.12	1.2	0.031 U	0.041	0.042	0.031 U	3.2	2.2	0.03 U	0.091	5.1
Nickel	7440-02-0	NA	250	2400	17	56	19	12	16	6.3	48	56	19	17	170
Selenium	7782-49-2	NA	63	3100	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U	2.9 U	2.9 U	2.8 U	2.9 U	2.9 U
Silver	7440-22-4	NA	110	4100	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.3 U	1.3 U	1.2 U	1.3 U	1.3 U
Thallium	7440-28-0	NA	2	2	1 U	1 U	1 U	1 U	1 U	1 U	1.1 U	1.1 U	1 U	1.1 U	1.1 U
Zinc	7440-66-6	NA	1500	1500	39	590	47	24	34	19 U	730	860	18 U	19 U	3500
Cyanide	57-12-5	NA	1100	21000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	103-95-2	50	10000	10000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
% Solids	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

NJDEP - New Jersey Department of Environmental Protection
mg/Kg - Milligrams per Kilograms, equivalent to parts per million
U - Not detected at the PCL
J - Analyte detected below PCL and/or estimated concentration
NA - Not Available
NR - Analysis Not Requested
Value exceeded the NJDEP residential soil cleanup criteria
Value exceeded the NJDEP non-residential soil cleanup criteria

Table 6
Summary of Inorganic Soil Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Veritech Sample ID: Sampling Date: Units:	CAS Number	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	MW-C4 S-1 1.5-2.0 AA90437 6/23/1999 mg/kg	MW-C4 S-3 5-5.5 AA90438 6/23/1999 mg/kg	MW-C5 S-1 1-2 AA90531 6/24/1999 mg/kg	MW-C5 S-5 8-8.5 AA90532 6/24/1999 mg/kg	PA-C6 S-1 0-1 AA90533 6/24/1999 mg/kg	PA-C6 S-5 8-8.5 AA90534 6/24/1999 mg/kg	PA-C7 S-1 0-1 AA90535 6/24/1999 mg/kg	PA-C7 S-5 8-8.5 AA90536 6/24/1999 mg/kg
Antimony	7440-36-0	NA	14	340	1.5 U	1.5 U	1.4 U	1.4 U	1.4 U	1.5	2	1.3 U
Arsenic	7440-38-2	NA	20	20	3.9	2.4	2.5	2.3	2.6	3.3	5.6	3
Barium	7440-39-3	NA	700	47000	250	20	90	12	22	48	80	7.8
Beryllium	7440-41-7	NA	2	2	0.21 U	0.21 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Cadmium	7440-43-9	NA	39	100	0.1	0.35 U	4.6	0.32 U	0.31 U	0.97	1.8	0.31 U
Chromium	7440-47-3	NA	500	500	11000	13	1300	14	12	120	54	12
Copper	7440-50-8	NA	600	600	1000	32	190	10	18	75	190	8.8
Lead	7439-92-1	NA	400	600	1000	63	390	10	8.2	200	210	4.8
Mercury	7439-97-6	NA	14	270	6.5	0.18	0.96	0.032 U	0.031 U	0.13	0.79	0.031 U
Nickel	7440-02-0	NA	250	2400	4000	15	650	34	9.9	89	58	17
Selenium	7782-49-2	NA	63	3100	3.1 U	3.1 U	2.9 U	2.9 U	2.8 U	2.9 U	2.8 U	2.8 U
Silver	7440-22-4	NA	110	4100	1.4 U	1.4 U	1.3 U	1.3 U	1.2 U	1.3 U	1.3 U	1.2 U
Thallium	7440-28-0	NA	2	2	1.2 U	1.2 U	1.1 U	1.1 U	1 U	1.1 U	1.1 U	1 U
Zinc	7440-66-6	NA	1500	1500	2600	140	980	31	27	310	360	25
Cyanide	57-12-5	NA	1100	21000	9.7	1.2	0.63	0.27 U	0.26 U	0.57	0.68	0.6
Phenol	103-95-2	50	10000	10000	1.4 U	1.4 U	1.3 U	1.3 U	2.6	1.3 U	3.7	1.3 U
% Solids		NA	NA	NA	86	86	93	94	96	94	95	97

Notes

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U - Not detected at the PQL

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NA - Not Available

NR - Analysis Not Requested

Value exceeded the NJDEP residential soil cleanup criteria

Value exceeded the NJDEP non-residential soil cleanup criteria

Table 7
Summary of Total Petroleum Hydrocarbons Soil Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Well Sample ID: Depth (ft) Well Sample ID: Sampling Date: CAS Number	NUDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NUDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NUDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	PA-C8-E1-02 3.0-4.0 AB47731 5/16/2002 mg/kg	PA-C8-E1-05 3.0-4.0 AB47732 5/16/2002 mg/kg	PA-C7-E1-01 3.0-3.5 AB47748 12/4/2001 mg/kg	PA-C7-E1-02 2.5-3.0 AB47748 12/4/2001 mg/kg	PA-C7-E1-03 3.0-3.5 AB47760 12/4/2001 mg/kg	PA-C7-E1-04 3.5-4.0 AB47781 12/4/2001 mg/kg	PA-C7-N1-01 2.0-2.5 AB47733 12/4/2001 mg/kg	PA-C7-N1-02 2.5-3.0 AB47733 12/4/2001 mg/kg	PA-C7-N1-03 3.5-4.0 AB47734 12/4/2001 mg/kg	PA-C7-N1-04 3.5-4.0 AB47735 12/4/2001 mg/kg	PA-C7-W1-01 2.0-2.5 AB47736 12/4/2001 mg/kg	PA-C7-W1-02 2.5-3.0 AB47737 12/4/2001 mg/kg
at Petroleum Hydrocarbons	10000	10000	10000	110	35	350	450	240	74	550	350	280	110	3100	2100
Well Sample ID: Depth (ft) Well Sample ID: Sampling Date: CAS Number	NUDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NUDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NUDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	PA-C7-W1-03 3.0-3.5 AB47758 12/4/2001 mg/kg	PA-C7-W1-04 3.5-4.0 AB47759 12/4/2001 mg/kg	PA-C7-E1-01 3.0-3.5 AB47760 12/4/2001 mg/kg	PA-C7-E1-02 2.5-3.0 AB47761 12/4/2001 mg/kg	PA-C7-E1-03 3.0-3.5 AB47762 12/4/2001 mg/kg	PA-C7-E1-04 3.5-4.0 AB47763 12/4/2001 mg/kg	PA-C7-N1-01 2.0-2.5 AB47764 12/4/2001 mg/kg	PA-C7-N1-02 2.5-3.0 AB47765 12/4/2001 mg/kg	PA-C7-N1-03 3.5-4.0 AB47766 12/4/2001 mg/kg	PA-C7-N1-04 3.5-4.0 AB47767 12/4/2001 mg/kg	PA-C7-W1-01 2.0-2.5 AB47768 12/4/2001 mg/kg	PA-C7-W1-02 2.5-3.0 AB47769 12/4/2001 mg/kg
at Petroleum Hydrocarbons	10000	10000	10000	380	48	550	600	100	110	74	37	35	42	14	35
Well Sample ID: Depth (ft) Well Sample ID: Sampling Date: CAS Number	NUDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NUDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NUDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	PA-C7-W1-03 3.0-3.5 AB47770 12/4/2001 mg/kg	PA-C7-W1-04 3.5-4.0 AB47771 12/4/2001 mg/kg	PA-C7-E1-01 3.0-3.5 AB47772 12/4/2001 mg/kg	PA-C7-E1-02 2.5-3.0 AB47773 12/4/2001 mg/kg	PA-C7-E1-03 3.0-3.5 AB47774 12/4/2001 mg/kg	PA-C7-E1-04 3.5-4.0 AB47775 12/4/2001 mg/kg	PA-C7-N1-01 2.0-2.5 AB47776 12/4/2001 mg/kg	PA-C7-N1-02 2.5-3.0 AB47777 12/4/2001 mg/kg	PA-C7-N1-03 3.5-4.0 AB47778 12/4/2001 mg/kg	PA-C7-N1-04 3.5-4.0 AB47779 12/4/2001 mg/kg	PA-C7-W1-01 2.0-2.5 AB47780 12/4/2001 mg/kg	PA-C7-W1-02 2.5-3.0 AB47781 12/4/2001 mg/kg
at Petroleum Hydrocarbons	10000	10000	10000	51	38	50	47	41	46	40	36	36	36	36	36

NUDEP - New Jersey Department of Environmental Protection
mg/kg - Milligrams per kilogram, equivalent to parts per million
U - Not detected at the POL
J - Analyte detected below POL and/or estimated concentration
Shaded value exceeded the corresponding soil cleanup criteria

Table 7
Summary of Total Petroleum Hydrocarbons Soil Sampling Results
Napitano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Site Sample ID: Sampling Date: Notes	CAS Number	NUDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NUDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NUDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	PA-C6-E1-01 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-02 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-03 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-04 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-05 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-06 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-07 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-08 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-09 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-10 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-11 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-12 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-13 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-14 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-15 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-16 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-17 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-18 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-19 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-20 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-21 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-22 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-23 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-24 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-25 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-26 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-27 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-28 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-29 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-30 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-31 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-32 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-33 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-34 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-35 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-36 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-37 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-38 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-39 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-40 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-41 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-42 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-43 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-44 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-45 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-46 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-47 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-48 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-49 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-50 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-51 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-52 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-53 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-54 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-55 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-56 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-57 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-58 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-59 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-60 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-61 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-62 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-63 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-64 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-65 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-66 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-67 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-68 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-69 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-70 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-71 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-72 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-73 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-74 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-75 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-76 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-77 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-78 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-79 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-80 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-81 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-82 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-83 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-84 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-85 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-86 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-87 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-88 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-89 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-90 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-91 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-92 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-93 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-94 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-95 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-96 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-97 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-98 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-99 2.0-3.0 12/7/2001 mg/kg	PA-C6-E1-100 2.0-3.0 12/7/2001 mg/kg
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NUDEP - New Jersey Department of Environmental Protection
 mg/kg - Milligrams per Kilogram, equivalent to parts per million
 U - Not detected at the POL level and/or estimated concentration
 U - Analyte detected below POL and/or estimated concentration
 Shaded value exceeded the corresponding soil cleanup criteria

Table 7

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NJDEP - New Jersey Department of Environmental Protection

mg/Kg - Milligrams per kilogram, equivalent to parts per million

U - Not deleted at the PQL

J - Analyte detected below PQL and/or estimated concentration

Shaded value exceeded the corresponding soil cleanup criteria

Table 7
Summary of Total Petroleum Hydrocarbons Soil Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Sample ID: Sampling Depth (ft) Batch Sample ID: Sampling Date:	CAS Number 23135-22-0	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	MW-N2 0.5-1.5 AA94324 6/27/1999	MW-N2 4.5-5.0 AA94324 6/27/1999	BH-N6 0.5-2.0 AA94555 9/27/1999	BH-N6 6.0-8.0 AA94555 9/27/1999	BH-N1 0.3-1.8 AA94149 6/25/1999	BH-N1 4.0-4.5 AA94150 6/25/1999	MW-C1 S-1 1.5-2.0 AA90433 6/23/1999	MW-C1 S-2 3-3.5 AA90434 6/23/1999	MW-C2 S-1 1-2 AA90327 6/23/1999	MW-C2 S-4 6-7 AA90328 6/23/1999	MW-C3 S-1 1.5-2.0 AA90435 6/23/1999	MW-C3 S-4 6-7 AA90436 6/23/1999
Initial Petroleum Hydrocarbons	23135-22-0	10000	10000	10000	9700	1300	570	570	570	55	180	48	10000	98	48000	50
Sample ID: Sampling Depth (ft) Batch Sample ID: Sampling Date:	CAS Number 23135-22-0	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	MW-C4 S-1 1.5-2.0 AA90437 6/23/1999	MW-C4 S-3 5-8.5 AA90438 6/23/1999	MW-C5 S-1 1-2 AA90331 6/24/1999	MW-C5 S-3 8-8.5 AA90332 6/24/1999	PA-C6 S-1 0-1 AA90333 6/24/1999	PA-C6 S-5 8-8.5 AA90334 6/24/1999	PA-C7 S-1 0-1 AA90335 6/24/1999	PA-C7 S-6 8-8.5 AA90336 6/24/1999	BH-N6 0.0-0.5 AB16065 10/22/2000	BH-N7 0.0-0.5 AB16068 10/22/2000	BH-N6A 0.5-2.5 AB16336 7/23/2001	BH-N6B 0.5-2.5 AB16336 7/23/2001
Initial Petroleum Hydrocarbons	23135-22-0	10000	10000	10000	7200	98	10000	77	42000	160	30000	60	10000	10000	4300	430
Sample ID: Sampling Depth (ft) Batch Sample ID: Sampling Date:	CAS Number 23135-22-0	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	BH-N6C 0.5-2.5 AB16337 7/23/2001	BH-N6D 0.5-2.5 AB16338 7/23/2001										
Initial Petroleum Hydrocarbons	23135-22-0	10000	10000	10000	5700	9800										

NJDEP - New Jersey Department of Environmental Protection
 mg/kg - Milligrams per Kilogram, equivalent to parts per million
 U - Not detected at the PQL and/or estimated concentration
 J - Values detected below the PQL and/or estimated concentration
 Shaded value exceeded the corresponding soil cleanup criteria

Table 8
Summary of Excel's Volatile Organic Compounds Soil Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID:	NJDEP Impact to	NJDEP	NJDEP	SB-4A	SB-4A	SB-4B	SB-4B
Sampling Depth (ft)	Groundwater	Residential	Non-Residential	1.0-1.5	5.5-6.0	.5-1.0	5.5-6.0
Lab Sample ID:	Soil Cleanup	Direct Contact Soil	Direct Contact Soil	140185	140186	140187	140188
Sampling Date:	Criteria	Cleanup Criteria	Cleanup Criteria	6/24/1999	6/24/1999	6/24/1999	6/24/1999
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chlorofluoromethane	NA	NA	NA	0.67	ND	1.8	ND
Tetrachloroethene	1	4	6	ND	ND	0.41	ND
Toluene	500	1000	1000	0.98 J	ND	0.31	ND
Ethylbenzene	100	1000	1000	ND	ND	0.15	ND
Xylene	67	410	1000	ND	ND	0.74	ND

Notes:

NJDEP - New Jersey Department of Environmental Protection

mg/Kg - Milligrams per Kilograms, equivalent to parts per million

U - Not detected at the PQL

J - Analyte detected below PQL and/or estimated concentration

NA Not Available

NR - Analysis Not Requested

Value exceeded the NJDEP residential soil cleanup criteria

Value exceeded the NJDEP non-residential soil cleanup criteria

Table 9
Summary of Excel's Semivolatile Organic Compounds Soil Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Lab Sample ID: Sampling Date: Units:	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SB-1 0.0-0.5 139896 6/23/1999 mg/kg	SB-1 2.0-2.5 139897 6/23/1999 mg/kg	SB-2 1.0-1.5 139892 6/23/1999 mg/kg	SB-4A 1.0-1.5 140185 6/24/1999 mg/kg	SB-4A 5.5-6.0 140186 6/24/1999 mg/kg	SB-4B* 0.5-1.0 140187 6/24/1999 mg/kg	SB-4B 5.5-6.0 140188 6/24/1999 mg/kg
Phthalene	100	230	4200	0.080 J	ND	ND	0.210 J	ND	0.490 J	ND
Benaphthylene	NA	NA	NA	0.160 J	ND	ND	0.290 J	ND	0.540 J	ND
Acenaphthene	100	3400	10000	0.030 J	ND	ND	0.220 J	ND	0.580 J	ND
Fluorene	100	2300	10000	0.041 J	ND	ND	0.260 J	ND	0.610 J	ND
Phenanthrene	NA	NA	NA	0.810 J	ND	ND	1.60 J	0.014 J	4.9	0.0081 J
Anthracene	100	10000	10000	0.220 J	ND	ND	0.520 J	ND	1.40 J	ND
Fluoranthene	100	2300	10000	1.7	0.012 J	ND	3.30 J	ND	10.0	0.0074 J
Pyrene	100	1700	10000	1.6	0.012 J	ND	4.0 J	ND	8.7	0.012 J
Benzo[a]anthracene	500	0.9	4	1.1	0.017 J	ND	1.5	ND	1.7	ND
Chrysene	500	9	40	1.2	0.0096 J	ND	1.50 J	ND	5.3	ND
Benzo[b]Fluoranthene	50	0.9	4	3.4	0.012 J	ND	3.4	ND	5.5	ND
Benzo[k]Fluoranthene	500	0.9	4	1.2	ND	ND	1.1	ND	2.0	ND
Benzo[a]pyrene	100	0.66	0.66	1.7	0.011 J	ND	2.0	ND	3.5	ND
Indeno[1,2,3-cd]pyrene	500	0.9	4	0.350 J	0.0079 J	ND	0.85	ND	1.4	ND
Dibenzo[a,h]anthracene	100	0.66	0.66	ND	ND	ND	ND	ND	0.390	ND
Benzo[g,h,i]perylene	NA	NA	NA	0.320 J	0.0076 J	ND	0.650 J	ND	1.40 J	ND

Notes:

NJDEP - New Jersey Department of Environmental Protection
mg/Kg - Milligrams per Kilograms, equivalent to parts per million
U - Not detected at the PQL
J - Analyte detected below PQL and/or estimated concentration
NA Not Available
NR - Analysis Not Requested
Value exceeded the NJDEP residential soil cleanup criteria
Value exceeded the NJDEP non-residential soil cleanup criteria

Table 9
Summary of Excel's Semivolatile Organic Compounds Soil Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Lab Sample ID: Sampling Date: Units:	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SB-5A 0.0-0.5 139898 6/23/1999 mg/kg	SB-5A 6.5-7.0 139901 6/23/1999 mg/kg	SB-5B 0.0-0.5 139907 6/23/1999 mg/kg	SB-5B 7.0-7.5 109909 6/23/1999 mg/kg	SB-5C 2.0-2.5 139905 6/23/1999 mg/kg	SB-5C 3.5-4.0 139906 6/23/1999 mg/kg	SB-5E 0.5-1.0 139902 6/23/1999 mg/kg
Phthalene	100	230	4200	1.0 J	ND	0.220 J	ND	5.3	0.240 J	0.610 J
Benaphthylene	NA	NA	NA	1.60 J	ND	0.480 J	ND	0.240 J	0.070 J	0.360 J
Acenaphthene	100	3400	10000	0.170 J	ND	0.170 J	ND	1.20 J	0.360 J	1.5 J
Fluorene	100	2300	10000	0.370 J	ND	0.180 J	ND	0.920 J	0.52	1.8 J
Phenanthrene	NA	NA	NA	2.4	ND	1.70 J	ND	4.8	1.3	18.0
Anthracene	100	10000	10000	1.50 J	ND	0.710 J	ND	1.4 J	0.290 J	4.6
Fluoranthene	100	2300	10000	4.4	ND	4.70 J	ND	7.5	0.670 J	21.0
Pyrene	100	1700	10000	11.0	ND	4.50 J	ND	5.0	0.47	15.0
Benzo[a]anthracene	500	0.9	4	2.6	ND	2.1	ND	3.6	0.14	6.5
Chrysene	500	9	40	2.7	ND	2.60 J	ND	2.6	0.120 J	8.3
Benzo[b]fluoranthene	50	0.9	4	34.0	ND	4.6	ND	2.9	0.1	10.0
Benzo[k]fluoranthene	500	0.9	4	ND	ND	1.6	ND	1.2	0.036 J	4.0
Benzo[a]pyrene	100	0.66	0.66	1.4	ND	3.0	ND	1.7	0.059	8.2
Indeno[1,2,3-cd]pyrene	500	0.9	4	1.1	ND	1.4	ND	0.5	0.028 J	1.4
Dibenzo[a,h]anthracene	100	0.66	0.66	0.3	ND	0.40 J	ND	0.150 J	0.012 J	0.58
Benzo[g,h,i]perylene	NA	NA	NA	1.01	ND	1.20 J	ND	0.420 J	0.029 J	1.20 J

Notes:

NJDEP - New Jersey Department of Environmental Protection
mg/Kg - Milligrams per Kilograms, equivalent to parts per million
U - Not detected at the PQL
J - Analyte detected below PQL and/or estimated concentration
NA Not Available
NR - Analysis Not Requested
Value exceeded the NJDEP residential soil cleanup criteria
Value exceeded the NJDEP non-residential soil cleanup criteria

Table 9
Summary of Excel's Semivolatile Organic Compounds Soil Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Lab Sample ID: Sampling Date: Units:	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SB-5E 6.0-6.5 139904 6/23/1999 mg/kg	SB-5F 1.0-1.5 140191 6/25/1999 mg/kg	SB-5F 5.5-6.0 140193 6/25/1999 mg/kg
Naphthalene	100	230	4200	ND	0.960 J	ND
Benaphthylene	NA	NA	NA	ND	0.280 J	ND
Acenaphthene	100	3400	10000	ND	2.70 J	ND
Fluorene	100	2300	10000	ND	2.70 J	ND
Phenanthrene	NA	NA	NA	ND	21.0	ND
Anthracene	100	10000	10000	ND	6.3	ND
Fluoranthene	100	2300	10000	ND	37.0	ND
Pyrene	100	1700	10000	ND	32.0	ND
Benzo[a]anthracene	500	0.9	4	ND	15.0	ND
Chrysene	500	9	40	ND	17.0	ND
Benzo[b]fluoranthene	50	0.9	4	ND	17.0	ND
Benzo[k]fluoranthene	500	0.9	4	ND	6.9	ND
Benzo[a]pyrene	100	0.66	0.66	ND	12.0	ND
Indeno[1,2,3-cd]pyrene	500	0.9	4	0.0084 J	4.4	ND
Dibenzo[a,h]anthracene	100	0.66	0.66	ND	1.5	ND
Benzo[g,h,i]perylene	NA	NA	NA	0.0098 J	3.8	ND

Notes:

NJDEP - New Jersey Department of Environmental Protection
mg/Kg - Milligrams per Kilograms, equivalent to parts per million
U - Not detected at the PQL
J - Analyte detected below PQL and/or estimated concentration
NA - Not Available
NR - Analysis Not Requested
Value exceeded the NJDEP residential soil cleanup criteria
Value exceeded the NJDEP non-residential soil cleanup criteria

Table 10
Summary of Excel's PCB Soil Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Lab Sample ID: Sampling Date: Units:	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SB-4A 1.0-1.5 140185 6/24/1999 mg/kg	SB-4A 5.5-6.0 140186 6/24/1999 mg/kg	SB-4B 0.5-1.0 140187 6/24/1999 mg/kg	SB-4B 5.5-6.0 140188 6/24/1999 mg/kg	SB-5A 0.0-0.5 139898 6/23/1999 mg/kg	SB-5A 2.5-3.0 139899 6/23/1999 mg/kg
Aroclor 1242	50	0.49	2	6.5	ND	2.5	ND	ND	ND
Aroclor 1248	50	0.49	2	ND	ND	ND	ND	9.3	ND
Aroclor 1254	50	0.49	2	1.90	ND	7.5	ND	5.8	ND
Aroclor 1260	50	0.49	2	2.1	ND	4.5	ND	ND	ND

Notes:

NJDEP - New Jersey Department of Environmental Protection

mg/Kg - Milligrams per Kilograms, equivalent to parts per million

U - Not detected at the PQL

J - Analyte detected below PQL and/or estimated concentration

NA Not Available

NR - Analysis Not Requested

Value exceeded the NJDEP residential soil cleanup criteria

Value exceeded the NJDEP non-residential soil cleanup criteria

Table 10
Summary of Excel's PCB Soil Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID:	NJDEP Impact to	NJDEP	NJDEP	SB-5B	SB-5B	SB-5B	SB-5C	SB-5C	SB-5D	SB-5D
Sampling Depth (ft)	Groundwater	Residential	Non-Residential	0.0-0.5	2.5-3.0	7.0-7.5	2.0-2.5	3.5-4.0	0.0-0.5	1.5-2.0
Lab Sample ID:	Soil Cleanup	Direct Contact Soil	Direct Contact Soil	139907	139908	139909	139905	139906	140189	140190
Sampling Date:	Criteria	Cleanup Criteria	Cleanup Criteria	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/25/1999	6/25/1999
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Aroclor 1242	50	0.49	2	ND		ND	ND	ND		ND
Aroclor 1248	50	0.49	2		ND	ND		ND	ND	0.4
Aroclor 1254	50	0.49	2			ND		ND		0.34
Aroclor 1260	50	0.49	2	ND		ND	ND	ND		0.19

Notes:

NJDEP - New Jersey Department of Environmental Protection

mg/Kg - Milligrams per Kilograms, equivalent to parts per million

U - Not detected at the PQL

J - Analyte detected below PQL and/or estimated concentration

NA Not Available

NR - Analysis Not Requested

Value exceeded the NJDEP residential soil cleanup criteria

Value exceeded the NJDEP non-residential soil cleanup criteria

Table 10
Summary of Excel's PCB Soil Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Lab Sample ID: Sampling Date: Units:	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SB-5D 3.5-4.0 140196 6/25/1999 mg/kg	SB-5E 0.5-1.0 139902 6/23/1999 mg/kg	SB-5E 2.5-3.0 139903 6/23/1999 mg/kg	SB-5E 6.0-6.5 139904 6/23/1999 mg/kg	SB-5F 1.0-1.5 140191 6/25/1999 mg/kg	SB-5F 2.5-3.0 140192 6/25/1999 mg/kg
Aroclor 1242	50	0.49	2	0.56	ND	15	ND	15	ND
Aroclor 1248	50	0.49	2	ND	12	ND	ND	ND	ND
Aroclor 1254	50	0.49	2	0.44	9	82	0.15	9	ND
Aroclor 1260	50	0.49	2	0.26	ND	53	ND	53	ND

Notes:

NJDEP - New Jersey Department of Environmental Protection
mg/Kg - Milligrams per Kilograms, equivalent to parts per million
U - Not detected at the PQL
J - Analyte detected below PQL and/or estimated concentration
NA Not Available
NR - Analysis Not Requested
Value exceeded the NJDEP residential soil cleanup criteria
Value exceeded the NJDEP non-residential soil cleanup criteria

Table 11
Summary of Excel's Inorganic Soil Sampling Results
Naporano and Hugo Neu
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Lab Sample ID: Sampling Date: Units:	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SB-4A 1.0-1.5 140185 6/24/1999 mg/kg	SB-4A 5.5-6.0 140186 6/24/1999 mg/kg	SB-4B 0.5-1.0 140187 6/24/1999 mg/kg	SB-4B 5.5-6.0 140188 6/24/1999 mg/kg	SB-5A 0.0-0.5 139898 6/23/1999 mg/kg	SB-5A 2.5-3.0 139899 6/23/1999 mg/kg	SB-5A 6.5-7.0 139901 6/23/1999 mg/kg	SB-5B 0.0-0.5 139907 6/23/1999 mg/kg	SB-5B 7.0-7.5 139909 6/23/1999 mg/kg
Antimony	NA	14	340	NA	NA	NA	NA	18.9	ND	ND	9.0 B	NA
Arsenic	NA	20	20	NA	NA	NA	NA	7.5	NA	NA	8.4	NA
Beryllium	NA	2	2	NA	NA	NA	NA	0.23 B	NA	NA	0.28 B	NA
Cadmium	NA	39	100	NA	NA	NA	NA	6.2	NA	NA	28.4	NA
Chromium	NA	500	500	NA	NA	NA	NA	135	NA	NA	321	NA
Copper	NA	600	600	NA	NA	NA	NA	6.9	6.9	5.3	1.5	0.93 B
Lead	NA	400	600	189	ND	2540	ND	3060	4.8	4.2	1000	1.2
Mercury	NA	14	270	NA	NA	NA	NA	1.3	NA	NA	6.3	NA
Nickel	NA	250	2400	NA	NA	NA	NA	96.6	NA	NA	324	2.8 B
Selenium	NA	63	3100	NA	NA	NA	NA	3.7	NA	NA	ND	NA
Thallium	NA	2	2	NA	NA	NA	NA	ND	NA	NA	ND	NA
Silver	NA	110	4100	NA	NA	NA	NA	36.1	NA	NA	1.5 B	NA
Zinc	NA	1500	1500	NA	NA	NA	NA	1,440	NA	NA	380	5.3 B

Notes:

NJDEP - New Jersey Department of Environmental Protection
mg/Kg - Milligrams per Kilograms, equivalent to parts per million
U - Not detected at the PQL
J - Analyte detected below PQL and/or estimated concentration
NA Not Available
NR - Analysis Not Requested
Value exceeded the NJDEP residential soil cleanup criteria
Value exceeded the NJDEP non-residential soil cleanup criteria

Table 11
Summary of Excel's Inorganic Soil Sampling Results
Naporano and Hugo Neu
Port Newark
Newark, New Jersey

Client Sample ID: Sampling Depth (ft) Lab Sample ID: Sampling Date: Units:	NJDEP Impact to Groundwater Soil Cleanup Criteria mg/kg	NJDEP Residential Direct Contact Soil Cleanup Criteria mg/kg	NJDEP Non-Residential Direct Contact Soil Cleanup Criteria mg/kg	SB-5C 2.0-2.5 139905 6/23/1999 mg/kg	SB-5C 3.5-4.0 139906 6/23/1999 mg/kg	SB-5D 0.0-0.5 140189 6/25/1999 mg/kg	SB-5D 3.5-4.0 140196 6/25/1999 mg/kg	SB-5E 0.5-1.0 139902 6/23/1999 mg/kg	SB-5E 6.0-6.6 139904 6/23/1999 mg/kg	SB-5F 1.0-1.5 140191 6/25/1999 mg/kg	SB-5F 2.5-3.0 140192 6/25/1999 mg/kg	SB-5F 5.5-6.0 140193 6/25/1999 mg/kg
Antimony	NA	14	340	24.1	ND	ND	NA	ND	NA	ND	NA	NA
Arsenic	NA	20	20	16.4	NA	11.9	NA	13.1	NA	16.1	NA	NA
Beryllium	NA	2	2	ND	NA	ND	NA	ND	NA	0.19 B	NA	NA
Cadmium	NA	39	100	11.4	NA	15.6	NA	19.2	NA	10.4	NA	NA
Chromium	NA	500	500	1,270	NA	341	NA	38,200	NA	182	NA	NA
Copper	NA	600	600	1,770	2.5 B	579	NA	2,160	6.1	50,800	7.1	4.2 B
Lead	NA	400	600	1,710	3.4	882	38.1	1,860	6.0	1,160	7.1	3.2
Mercury	NA	14	270	4.1	NA	3.8	NA	0.27	NA	5.0	NA	NA
Nickel	NA	250	2400	571	6.1 B	577	18.3	20,800	21.9	176	NA	NA
Selenium	NA	63	3100	ND	NA	ND	NA	ND	NA	ND	NA	NA
Thallium	NA	2	2	ND	NA	ND	NA	ND	NA	ND	NA	NA
Silver	NA	110	4100	3.7 B	NA	ND	NA	2.9 B	NA	2.5 B	NA	NA
Zinc	NA	1500	1500	2,720	55.1	2,230	99.3	3,420	19.6	2,180	25.4	13.3

Notes:

NJDEP - New Jersey Department of Environmental Protection

mg/Kg - Milligrams per Kilograms, equivalent to parts per million

U - Not detected at the PQL

J - Analyte detected below PQL and/or estimated concentration

NA - Not Available

NR - Analysis Not Requested

Value exceeded the NJDEP residential soil cleanup criteria

Value exceeded the NJDEP non-residential soil cleanup criteria

Table 12
Summary of Excel's Total Petroleum Hydrocarbons Soil Sampling Results
Naparano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Sample ID:	NUDEP Impact to Groundwater	NUDEP Residential Direct Contact Soil Cleanup Criteria	NUDEP Non-Residential Direct Contact Soil Cleanup Criteria	SB-1	SB-2	SB-3	SB-4A	SB-4B	SB-4B	SB-5A	SB-5A	SB-5B	SB-5C	SB-5D	SB-5D	SB-5D
Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:
139806	139806	139806	139806	139806	139806	139806	139806	139806	139806	139806	139806	139806	139806	139806	139806	139806
6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999
25.5	144	34.5	31.9	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg

Sample ID:	NUDEP Impact to Groundwater	NUDEP Residential Direct Contact Soil Cleanup Criteria	NUDEP Non-Residential Direct Contact Soil Cleanup Criteria	SB-1	SB-2	SB-3	SB-4F	SB-4F	SB-4F	SB-5E	SB-5E	SB-5E	SB-5E	SB-5E	SB-5E	SB-5E
Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:	Sample ID:
139802	139802	139802	139802	139802	139802	139802	139802	139802	139802	139802	139802	139802	139802	139802	139802	139802
6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999	6/23/1999
1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300
mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg

NUDEP - New Jersey Department of Environmental Protection
mg/kg - Milligrams per Kilograms, equivalent to parts per million
U - Not detected at the PCL
J - Analyte detected below PCL and/or estimated concentration
NA - Not Available
NR - Analysis Not Requested
Value exceeded the NJDEP residential soil cleanup criteria
Value exceeded the NJDEP non-residential soil cleanup criteria

Table 13
Summary of Volatile Organic Compounds Groundwater Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Veritech Sample ID: Sampling Date: Units:	CAS Number	Class IIA Ground Water Quality Standards UG/L	MW-N2 AA95332 9/21/1999 UG/L	MW-C2 AA91353 7/13/1999 UG/L	MW-C3 AA91297 7/12/1999 UG/L	MW-C4 AA91354 7/13/1999 UG/L	MW-C5 AA91355 7/13/1999 UG/L	F-BLANK AA91298 7/12/1999 UG/L	T-BLANK AA91299 7/12/1999 UG/L	F-BLANK AA91356 7/13/1999 UG/L	T-BLANK AA91367 7/13/1999 UG/L	FB-1-092199 AA95336 9/21/1999 UG/L	TB-1-092199 AA95337 9/21/1999 UG/L
1,1,1-Trichloroethane	71-55-6	30	0.51 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.51 U	0.51 U
1,1,2,2-Tetrachloroethane	79-34-5	2	0.55 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.55 U	0.55 U
1,1,2-Trichloroethane	79-00-5	3	0.58 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.58 U	0.58 U
1,1-Dichloroethane	75-34-3	50	0.52 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.52 U	0.52 U
1,1-Dichloroethene	75-35-4	2	0.68 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.68 U	0.68 U
1,2-Dichlorobenzene	95-50-1	600	0.25 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.25 U	0.25 U
1,2-Dichloroethane	107-06-2	2	0.43 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.43 U	0.43 U
1,2-Dichloropropane	78-87-5	1	0.36 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.39 U	0.39 U
1,3-Dichlorobenzene	541-73-1	600	0.76 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.76 U	0.76 U
1,4-Dichlorobenzene	106-46-7	75	0.4 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.4 U	0.4 U
2-Butanone	78-93-3	300	1.4 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1.4 U	1.4 U
2-Chloroethylvinylether	110-75-8	NA	1 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	4.7 U	1 U	1 U
2-Hexanone	591-78-6	NA	0.76 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.56 U	0.76 U	0.76 U
4-Methyl-2-Pentanone	108-10-1	400	0.78 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.78 U	0.78 U
Acetone	67-64-1	700	4.8 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	4.8 U	4.8 U
Acrolein	107-02-8	NA	9.4 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	6.7 U	9.4 U	9.4 U
Acrylonitrile	107-13-1	50	6.9 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	6.9 U	6.9 U
Benzene	71-43-2	1	0.47 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.47 U	0.47 U
Bromodichloromethane	75-27-4	1	0.85 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.85 U	0.85 U
Bromoform	75-25-2	4	1.3 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	1.3 U	1.3 U
Bromomethane	74-83-9	10	1.2 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	1.2 U	1.2 U
Carbon Disulfide	75-15-0	NA	0.4 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.4 U	0.4 U
Carbon Tetrachloride	56-23-5	2	0.81 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.81 U	0.81 U
Chlorobenzene	108-90-7	4	0.64 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.64 U	0.64 U
Chloroethane	75-00-3	NA	2.5 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	2.5 U	2.5 U
Chloroform	67-66-3	6	0.47 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.47 U	0.47 U
Chloromethane	74-87-3	30	0.65 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.65 U	0.65 U
cis-1,2-Dichloroethane	156-59-2	10	0.81 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.81 U	0.81 U
cis-1,3-Dichloropropene	10061-01-5	NA	0.45 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.45 U	0.45 U
Di-Isopropyl-ether	109-20-3	NA	0.33 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.33 U	0.33 U
Dibromochloromethane	124-48-1	10	0.7 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.7 U	0.7 U
Dichlorodifluoromethane	75-71-8	NA	0.67 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.67 U	0.67 U
Ethylbenzene	100-41-4	700	0.74 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.74 U	0.74 U
Methyl-t-butyl ether	1634-04-4	NA	3.4 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.42 U	0.43 U	0.43 U
Methylene Chloride	75-09-2	2	1.5 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	1.5 U	1.5 U
Styrene	100-42-5	100	0.33 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.33 U	0.33 U
t-Butyl Alcohol	75-65-0	NA	5.7 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	9.3 U	5.7 U	5.7 U
Tetrachloroethane	127-18-4	1	1 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	0.47 U	1 U	1 U
Toluene	108-88-3	1000	0.45 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.45 U	0.45 U
trans-1,2-Dichloroethane	156-60-5	100	1.2 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	1.2 U	1.2 U
trans-1,3-Dichloropropene	10061-02-6	NA	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.42 U	0.42 U
Trichloroethene	79-01-6	1	0.79 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.79 U	0.79 U
Trichlorofluoromethane	75-69-4	NA	0.81 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.81 U	0.81 U
Vinyl Acetate	108-05-4	NA	0.32 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.32 U	0.32 U
Vinyl Chloride	75-01-4	5	1.1 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	1.1 U	1.1 U
m,p-Xylenes	1330-20-7	NA	1.1 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	1.1 U	1.1 U
O-Xylene	95-47-6	NA	0.69 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.69 U	0.69 U

NOTES
ug / L - Micrograms per Liter, equivalent to parts per billion
U - Not detected at the MDL
J - Analyte detected below MDL and/or estimated concentration
Shaded Values Exceeded Corresponding Cleanup Criteria
NA - Not Available

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[illegible]

NOTES
USL Micrograms per liter, equivalent to parts per billion
U Not detected at the PQL
J Analyte detected below PQL and/or estimated concentration
NA Not Available
Shaded values exceed the corresponding criteria

Table 15
Summary of Pesticides and PCB Groundwater Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Veritech Sample ID, Sampling Date: Units:	CAS Number	Class IIA Ground Water Quality Standards UG/L	MW-N2 AA91332 9/21/1999 UG/L	MW-C2 AA91353 7/13/1999 UG/L	MW-C3 AA91297 7/12/1999 UG/L	MW-C4 AA91354 7/13/1999 UG/L	MW-C5 AA91355 7/13/1999 UG/L	F-BLANK AA91298 7/12/1999 UG/L	F-BLANK AA91356 7/13/1999 UG/L	FB-1492189 AA95336 9/21/1999 UG/L
Adrin	309-00-2	0.04	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Alpha-BHC	319-84-6	0.02	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Beta-BHC	319-85-7	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chlordane	57-74-9	0.5	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Delta-BHC	319-86-8	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dieldrin	50-51-1	0.03	0.1 U	NA	NA	NA	NA	NA	NA	0.1 U
Endosulfan I	559-58-8	0.4	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan II	33213-65-9	0.4	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate	10311-07-8	0.4	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	72-20-8	2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Alderhyde	7421-93-4	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Ketone	53494-70-5	NA	0.1 U	0.1 U	0.23	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gamma-BHC	58-89-9	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Heptachlor	76-44-8	0.4	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Heptachlor Epoxide	1024-57-3	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Heptachlor Chloride	72-43-5	40	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
P-P-DDD	72-55-8	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
P-P-DDD	72-55-9	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
P-P-DDT	50-26-3	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Toxaphene	8001-35-2	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Aroclor-1016	12674-11-2	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1221	11104-28-2	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1222	11141-16-5	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1242	53469-21-9	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1248	12672-29-6	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1254	11097-69-1	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Aroclor-1260	11086-82-5	0.5	0.5 U	0.3 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

NOTES
J - Analysis detected below MDL and/or estimated concentration
UG/L Micrograms per Liter, equivalent to parts per billion
U Not detected at the POL
NA Not Available
Shaded Values Exceeded Corresponding Cleanup Criteria

Table 16
Summary of the Inorganic Analysis For Groundwater Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID: Veritech Sample ID: Sampling Date: Units:	CAS Number	Class Ila Ground Water Quality Standards (ppm)	MW-N2 AA95332 9/21/1999 UG/L	MW-C2 AA91353 7/13/1999 UG/L	MW-C3 AA91297 7/12/1999 UG/L	MW-C4 AA91354 7/13/1999 UG/L	MW-C5 AA91355 7/13/1999 UG/L	F-BLANK AA91298 7/12/1999 UG/L	F-BLANK AA91356 7/13/1999 UG/L	FB-1-092199 AA95336 9/21/1999 UG/L
Antimony	7440-35-0	20	2.1	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Arsenic	7440-39-2	8	3.7 U	12	11	3.8	6.2	3.7 U	3.7 U	3.7 U
Barium	7440-39-3	2000	24	67	120	28	56	4.5 U	4.5 U	4.5 U
Beryllium	7440-41-7	20	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U
Cadmium	7440-43-9	4	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Chromium	7440-47-3	100	10 U	10 U	10	10 U	10 U	10 U	10 U	10 U
Copper	7440-50-8	1000	6.1	4.4	3.1	4.1	3.2	2.7 U	2.7 U	5.7
Lead	7439-92-1	10	12	3.1 U	3.1 U	5.7	3.1 U	3.1 U	3.1 U	3.1 U
Mercury	7439-97-6	2	0.19 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.19 U
Nickel	7440-02-0	100	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U
Selenium	7782-49-2	50	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U
Silver	7440-22-4	NA	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U
Thallium	7440-28-0	10	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U
Zinc	7440-66-6	5000	38 U	38 U	38 U	38 U	38 U	38 U	38 U	38 U
Cyanide	57-12-5	200	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenol	103-95-2	4000	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Chloride	16887-00-6	250000	380000	11000000	1700000	180000	1200000	1800 U	1800 U	1000 U
Total Suspended Solids	-	NA	140000	27999	20000	5200	24000	4000 U	3999 U	4000 U

NOTES:

ug/L - Micrograms per Liter, equivalent to parts per billion

U - Not detected at the MDL

J - Analyte detected below MDL and/or estimated concentration

NA - Not Available

Shaded Values Exceeded Corresponding Cleanup Criteria

Table 17
Summary of Total Petroleum Hydrocarbons Groundwater Sampling Results
Naporano and Hugo Neu Facilities
Port Newark
Newark, New Jersey

Client Sample ID:		Class (Ia)	MW-N2	MW-C2	MW-C3	MW-C4	MW-C5	F-BLANK	F-BLANK	FB-1-092199
Veritech Sample ID:		Ground Water	AA95332	AA91353	AA91297	AA91354	AA91355	AA91298	AA91356	AA95336
Sampling Date:		Quality	9/21/1999	7/13/1999	7/12/1999	7/13/1999	7/13/1999	7/12/1999	7/13/1999	9/21/1999
Units:	Number	(ppm)	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
Total Petroleum Hydrocarbons	23135-22-Q	NA	1000 U	1100 U	5100	1100 U	1100 U	1000 U	1100 U	1000 U

NOTES:

ug/L - Micrograms per Liter, equivalent to parts per billion

U - Not detected at the MDL

J - Analyte detected below MDL and/or estimated concentration

NA - Not Available

TABLES

**PORT NEWARK CONTAINER TERMINAL, LLC
SOIL AND GROUNDWATER ANALYTICAL PROTOCOLS**

Parameter Name	Matrix	Container	Analytical Method	Preservatives	Maximum Holding Time
Metals	Water	(1) 500 ml Polyethylene bottle	USEPA 200.7	HNO ₃ to pH<2; Cool to 4°C	6 months (Hg - 28 days)
Polynuclear Aromatic Hydrocarbons	Soil	(1) 16 oz. Glass jar	SW846 8270C	Cool to 4°C	7 days extract 40 days analyze
PCBs	Soil		SW846 8082		7 days extract 40 days analyze
Metals	Soil		SW846 6010B/7000		6 months (Hg - 28 days)
Total Solids	Soil		SM 2540G		28 days

Note:

All holding times listed are from time of sample collection.

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E 3-1
FORMER MAERSK-VERSAL TERMINAL SITE
SUMMARY OF ALL DETECTIONS AND EXCEEDANCES FOUND IN SOIL SAMPLES
PORT AUTHORITY SAMPLING IN SEPTEMBER AND OCTOBER, 2000

Contaminant	Residential	Non-Residential	Impact to	Sample ID: Lab ID: Sampling Depth (Ft bgs): Analysis Method	Sample Date: Unit	PO-BH02A-	PO-BH02B-	PO-BH02C-	PO-BH02D-	PO-BH02E-	PO-BH13A-	PO-BH13B-	PO-BH13C-	PO-BH13D-
	Direct	Direct	Groundwater			090800	090800	090800	100200	100200	090700	090700	090700	100300
	Contact Soil	Contact Soil	Soil			AB14581	AB14582	AB14583	AB16057	AB16058	AB14489	AB14490	AB14491	AB16059
	Cleanup	Cleanup	Cleanup			11-11.5	11-11.5	11-11.5	11-11.5	11-11.5	6.5-7	6.5-7	6.5-7	6.5-7
						09/08/00	09/08/00	09/08/00	10/02/00	10/02/00	09/07/00	09/07/00	09/07/00	10/03/00
						Rslt Qual	Rslt Qual	Rslt Qual	Rslt Qual	Rslt Qual	Rslt Qual	Rslt Qual	Rslt Qual	Rslt Qual
Metals														
Chromium ¹	120,000	NC	NC	EPA 6010	MG/KG	46	500	390	380	570	600	380	610	240
Copper	600	600	NC	EPA 6010	MG/KG									
Lead	400	600	NC	EPA 6010	MG/KG									
Mercury	14	270	NC	EPA 7471A	MG/KG									
Thallium	2	2	NC	EPA 6010	MG/KG									
Zinc	1,500	1,500	NC	EPA 6010	MG/KG	120	1,500	150	740	420				
Polychlorinated Biphenyls (PCB)														
Aroclor-1016	0.49	2	50	EPA 8082	MG/KG									
Aroclor-1221	0.49	2	50	EPA 8082	MG/KG									
Aroclor-1232	0.49	2	50	EPA 8082	MG/KG									
Aroclor-1242	0.49	2	50	EPA 8082	MG/KG									
Aroclor-1248	0.49	2	50	EPA 8082	MG/KG									
Aroclor-1254	0.49	2	50	EPA 8082	MG/KG									
Aroclor-1260	0.49	2	50	EPA 8082	MG/KG									
Polynuclear Aromatic Hydrocarbons (PAHs)														
Benzo[a]anthracene	0.9	4	500	EPA 8270	MG/KG									
Benzo[a]pyrene	0.66	0.66	100	EPA 8270	MG/KG									
Benzo[b]fluoranthene	0.9	4	50	EPA 8270	MG/KG									
Benzo[g,h,i]perylene	NC	NC	NC	EPA 8270	MG/KG									
Benzo[k]fluoranthene	0.9	4	500	EPA 8270	MG/KG									
% Solids				SM 2540G	%	75	61	64	64	55	66	66	65	73

Note:

¹ Chromium -trivalent (III) Concentrations and Values

Exceedance of Most Stringent Criteria

NC or "-" No Criteria Exists

U Not Detected above Method Detection Limit Shown in Result Column

J Estimated Concentrations

B Below Sample Quantitation Limit

BLANK Indicate Not Analyzed

ft bgs feet below ground surface

* - Health based criterion exceeds the 10,000 mg/kg maximum for total organic contaminants.

Taken from NJDEP's "Cleanup Standards for Contaminated Sites, N.J.A.C. 7:26D."

Samples with identifications beginning with PO-BH02 are associated with borings in Figure 1, identified as BH-MW-02A, BH-MW-02B, etc...

Similarly, samples identified beginning with PO-BH13 and PO-BH14 are associated with

Borings in Figure 1 identified as BH-MW-13 and BH-MW- 14

**FORMER MAERSK-UNIVERSAL TERMINAL SITE
SUMMARY OF ALL DETECTIONS AND EXCEEDANCES FOUND IN SOIL SAMPLES
PORT AUTHORITY SAMPLING IN SEPTEMBER AND OCTOBER, 2000**

Contaminant	Residential	Non-Residential	Impact to	Sample ID: Lab ID: Sampling Depth (Ft bgs): Analysis Method	Unit	PO-BH13E	PO-BH14A-	PO-BH14B-	PO-BH14C-	PO-BH14D-	PO-BH14E-	PO-BH14F-	PO-BH14G-
	Direct	Direct	Groundwater			100300	090700	090800	090800	090800	100300	100300	100300
	Contact Soil	Contact Soil	Soil			AB16060	AB14492	AB14584	AB14585	AB14586	AB16061	AB16062	AB16063
	Cleanup	Cleanup	Cleanup			6.5-7	1.5-2	1.5-2	1.5-2	1.5-2	1.5-2	1.5-2	1.5-2
				Sample Date:		10/03/00	09/07/00	09/08/00	09/08/00	09/08/00	10/03/00	10/03/00	10/03/00
						Rslt	Qual	Rslt	Qual	Rslt	Qual	Rslt	Qual
Metals													
Chromium ¹	120,000	NC	NC	EPA 6010	MG/KG	270							
Copper	600	600	NC	EPA 6010	MG/KG		480	3,500	510	1,200	720	580	230
Lead	400	600	NC	EPA 6010	MG/KG		8,000	2,800	1,700	2,500	35,000	2,500	810
Mercury	14	270	NC	EPA 7471A	MG/KG		9.2	38	18	12	19	4.3	8.1
Thallium	2	2	NC	EPA 6010	MG/KG								
Zinc	1,500	1,500	NC	EPA 6010	MG/KG		1,100	3,300	1,200	2,100	1,300	1,600	860
Polychlorinated Biphenyls (PCB)													
Aroclor-1016	0.49	2	50	EPA 8082	MG/KG								
Aroclor-1221	0.49	2	50	EPA 8082	MG/KG								
Aroclor-1232	0.49	2	50	EPA 8082	MG/KG								
Aroclor-1242	0.49	2	50	EPA 8082	MG/KG		2.3	8.2	4	6.1	2.2	1.7	0.96
Aroclor-1248	0.49	2	50	EPA 8082	MG/KG								
Aroclor-1254	0.49	2	50	EPA 8082	MG/KG								
Aroclor-1260	0.49	2	50	EPA 8082	MG/KG		2	6.2	3.3	4.9	11	4.4	6.2
Polynuclear Aromatic Hydrocarbons (PAHs)													
Benzo[a]anthracene	0.9	4	500	EPA 8270	MG/KG		2	3.7	14	4.4	2	0.69	J
Benzo[a]pyrene	0.66	0.66	100	EPA 8270	MG/KG		1.9	3	11	3.8	1.3	0.43	J
Benzo[b]fluoranthene	0.9	4	50	EPA 8270	MG/KG		2.9	4	0.92	U	5.7	0.68	J
Benzo[g,h,i]perylene	NC	NC	NC	EPA 8270	MG/KG								
Benzo[k]fluoranthene	0.9	4	500	EPA 8270	MG/KG		1.5	3.1	30	3.6	1.1	0.37	J
% Solids				SM 2540G	%	71	88	90	91	90	94	88	95

Note:¹ Chromium -trivalent (III) Concentrations and Values

Exceedance of Most Stringent Criteria

NC or "-" No Criteria Exists

U Not Detected above Method Detection Limit Shown in Result Column

J Estimated Concentrations

B Below Sample Quantitation Limit

BLANK Indicate Not Analyzed

ft bgs feet below ground surface

* - Health based criterion exceeds the 10,000 mg/kg maximum for total organic contaminants.

Taken from NJDEP's "Cleanup Standards for Contaminated Sites, N.J.A.C. 7:26D."

Samples with identifications beginning with PO-BH02 are associated with borings in Figure 1, identified as BH-MW-02A, BH-MW-02B, etc...

Similarly, samples identified beginning with PO-BH13 and PO-BH14 are associated with

Borings in Figure 1 identified as BH-MW-13 and BH-MW-14

**FORMER MAERSK-UNIVERSAL TERMINAL SITE
SUMMARY OF ALL DETECTIONS AND EXCEEDANCES FOUND IN SOIL SAMPLES
PORT AUTHORITY SAMPLING IN SEPTEMBER AND OCTOBER, 2000**

Contaminant	Residential Direct Contact Soil Cleanup	Non-Residential Direct Contact Soil Cleanup	Impact to Groundwater Soil Cleanup	Sample ID: Lab ID: Sampling Depth (ft bgs): Analysis Method	Unit	PO-BH14H- 100300 AB16064 1.5-2 10/03/00 Rslt Qual
Metals						
Chromium ¹	120,000	NC	NC	EPA 6010	MG/KG	
Copper	600	600	NC	EPA 6010	MG/KG	520
Lead	400	600	NC	EPA 6010	MG/KG	2,500
Mercury	14	270	NC	EPA 7471A	MG/KG	13
Thallium	2	2	NC	EPA 6010	MG/KG	
Zinc	1,500	1,500	NC	EPA 6010	MG/KG	10,000
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.49	2	50	EPA 8082	MG/KG	
Aroclor-1221	0.49	2	50	EPA 8082	MG/KG	
Aroclor-1232	0.49	2	50	EPA 8082	MG/KG	
Aroclor-1242	0.49	2	50	EPA 8082	MG/KG	5.9
Aroclor-1248	0.49	2	50	EPA 8082	MG/KG	
Aroclor-1254	0.49	2	50	EPA 8082	MG/KG	
Aroclor-1260	0.49	2	50	EPA 8082	MG/KG	6.5
Polynuclear Aromatic Hydrocarbons (PAHs)						
Benzo[a]anthracene	0.9	4	500	EPA 8270	MG/KG	2.4
Benzo[a]pyrene	0.66	0.66	100	EPA 8270	MG/KG	1.7
Benzo[b]fluoranthene	0.9	4	50	EPA 8270	MG/KG	3
Benzo[g,h,i]perylene	NC	NC	NC	EPA 8270	MG/KG	
Benzo[k]fluoranthene	0.9	4	500	EPA 8270	MG/KG	1.4
% Solids				SM 2540G	%	88

Note:¹ Chromium -trivalent (III) Concentrations and Values

Exceedance of Most Stringent Criteria

NC or "—" No Criteria Exists

U Not Detected above Method Detection Limit Shown in Result Column

J Estimated Concentrations

B Below Sample Quantitation Limit

BLANK Indicate Not Analyzed

ft bgs feet below ground surface

* - Health based criterion exceeds the 10,000 mg/kg maximum for total organic contaminants.

Taken from NJDEP's "Cleanup Standards for Contaminated Sites, N.J.A.C. 7:26D."

Samples with identifications beginning with PO-BH02 are associated with borings in Figure 1, identified as BH-MW-02A, BH-MW-02B, etc...

Similarly, samples identified beginning with PO-BH13 and PO-BH14 are associated with Borings in Figure 1 identified as BH-MW-13 and BH-MW- 14

TABLE 3-2
FORMER MAERSK-UNIVERSAL TERMINAL SITE
SUMMARY OF ALL DETECTIONS AND EXCEEDANCES FOUND IN GROUNDWATER SAMPLES
PORT AUTHORITY SAMPLING IN SEPTEMBER AND OCTOBER 2000 and APRIL AND MAY 2002

Contaminant	New Jersey Groundwater Quality Standards	Sample ID: Lab ID: Sample Date: Unit	PNO-MW-14A- 091900WG1 AB15185 09/19/2000		PNO-MW-12SB13- 091900WG1 AB15186 09/19/2000		PO-MW05- 042002WG01 AB56164 04/20/2002		PO-MW11- 042002WG01 AB56165 04/20/2002		PO-MW14- 042302WG01 AB56228 04/23/2002		PNCT-MW11- 053102 P2836-01 S 05/31/2002	
			Rslt	Qual	Rslt	Qual	Rslt	Qual	Rslt	Qual	Rslt	Qual	Rslt	Qual
Metals														
Antimony	20	UG/L			3.3	U								
Arsenic	8	UG/L	3.6	U	3.6	U	4	U	17				3.4	B
Lead	10	UG/L	5.1								5.0	U		
Thallium	10	UG/L			3.1	U								

Note:

Exceedance of Most Stringent Criteria
B Below contract required detection limit/above instrument detection limit
U Not Detected above Method Detection Limit Shown in Result Column
BLANK Indicate Not Analyzed
Taken from NJDEP's "Cleanup Standards for Contaminated Sites, N.J.A.C. 7:26D."

APPENDIX A

PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT PN - Pto Ports Frc		NAME OF CONTRACTOR Craig Dilling		BORING NO. BM-MU-2A		SHEET 1 OF 3	
LOCATION 5' NW of MU-2				CONTRACT NO. 426-99-006		DATE 9/8/00	
SPOON 3 "O.D. 2 3/8" I.D.		CASING SIZE Hucks		HOLE TYPE 1		GROUND WATER LEVEL	
MMER 140 # FALL 30		HAMMER					
DRILLER P Pennell				Date 9/8/00		Time 12:35	
SPECTOR D Howe				Depth 6' 11'		Remarks Water encountered Between	

CASING FWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE	
					Asphalt Crushed Stone	C.D. C.S. L.C.
and Huger		Hand Auger	Full	1	FILL - M-F Reddish Brown Sand, Tr SILT, Tr Gravel	
				2	Same	2.0
				3	FILL Dk Gray organic silty clay, LITTLE M-F Sand, Tr Gravel	
	5				Same	
Yellow Silt Huger					No Sampling 6-11'	
	10	1 2	18"	4	2 Attempts to Recover Sample	10.0
					FILL - Red Brown silt, clay & Dk Gray organic silty clay	11.5
					Bottom of Boring	
	15				All Samples checked with PID Meter	
					Sample # 4 11-11.5 Saved for Testing	
					Remaining Samples Discarded	
	20					
	25					

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used
2 - U = undisturbed; A = auger; OER = open end rod; V = vane
3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

70 : PN- Pto Ports Fac

DRING No. BH-MW-2A

DATE: 9/8/00

FIELD READINGS BY:

PID Model: *IX/2 RPE*

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
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THE PORT AUTHORITY OF N.Y. & N.J.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN-020 Ports Fr

LOCATION: #5' NE of MW-2

DATE: 9/8/00

BORING No: BH-MW-2A

TOTAL No. OF SAMPLES: 1 Soil

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE 9/8/00

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Soil Sample in 1-16 oz jar

**Engineering Department
Construction Division
Materials Engineering Section**

BORING REPORT

PROJECT		NAME OF CONTRACTOR		BORING NO.		SHEET 1 OF 3	
LOCATION				CONTRACT NO.		DATE	
PN- Pto Ports Fac		Crazy Drilling		BH-MW-2B		SURFACE ELEV.	
15' NE of MW-2				426-99-006		9/8/00	
SPOON		CASING SIZE		HOLE TYPE		GROUND WATER LEVEL	
3 "O.D. 2 3/4" I.D.		Augers		4			
HAMMER		HAMMER				Remarks	
140 # FALL 30						9/8/00	
DRILLER		P Pennell				No water encountered	
SPECTOR		D Howe					
CASING FOWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE		
	0				Asphat Crushed Stone		
land Auger		Hand Auger	Full	1	Fill - M-F Reddish Brown Sand, Tr Silt, Tr Gravel		
				2	Fill - M-F Brown Sand, Tr Silt, Tr Gravel		
	5			3	Same		
					No Sampling 6'-11'		
	10						
				4	Black & Gray organic silty clay, Tr Black Part		
					By Janet Barlow		
	15				All samples checked with PID Meter		
					St 4 11'-11.5' Sued for Testing		
					Remains in Samples Discarded		
	20						
	25						

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

NR. T: PN-PTC Ports. F_{TC}

ORING No. BH-MW-2B

DATE: 9/8/00

FIELD READINGS BY: D Howe

PID Model: *Mini RAB*

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
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THE PORT AUTHORITY OF N.Y. & N.J.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN-PJO Ports Fac

LOCATION: 15' NE of MW-2

DATE: 9/8/00

BORING No: BH-MW-2B

TOTAL No. OF SAMPLES: 1 Soil

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE 9/8/00

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

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DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Soil Sample in 1-16oz jar

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section
BORING REPORT

PROJECT PIV- Pto Ports Fac		NAME OF CONTRACTOR Craig Drilling		BORING NO. BM-MU-2C		SHEET 1 OF 3	
LOCATION 25' South of MU-2		CONTRACT NO. 426-99-006		DATE 9/8/00		SURFACE ELEV.	
POON 3	CASING SIZE 3" O.D. 2 3/8" I.D.	HOLE TYPE Augers	GROUND WATER LEVEL				
HAMMER 1 1/2" # FALL 30	HAMMER	# FALL	Date 9/8/00	Time 1:40 P	Depth Dry	Remarks No water encountered	
DRILLER P Pennell							
SPECTOR D Moore							

CASING FOWS/FT.	DEPTH C	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE	
					Auger Crushed Stone	0.0 0.5 1.0
Land Auger		Hard Auger	Full	1	Fill - M-F Brown Sand, Tr SILT, Tr Gravel	1.5
				2	Fill - M-F Dk Brown Sand, Little Gray organic SILTY Clay	
	5			3	Same	
	10	1-1-	7"	4	2 Attempts to Recover Sample Black & Gray organic SILTY Clay, Tr VegT	10.0 11.5
					Bottom of Boring	
	15					
	20					
	25					

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used
 2 - U = undisturbed; A = auger; OER = open end rod; V = vane
 3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

9C : PN- Pfo Ports Fac

DRING No. BH-MW-2C

DATE: 9/8/00

FIELD READINGS BY: D. Nor

PID Model: Mini RGB

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN- Pdc Ports Fac

LOCATION: #5' South of MU-2

DATE: 9/1/00

BORING No: BM-MU-2C

TOTAL No. OF SAMPLES: 1 Soil

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE

9/8/00

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Soil Sample in 1-16oz jar

THE PORT AUTHORITY OF NY & N.J.

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT PN- P&C Port's Fac		NAME OF CONTRACTOR Craig Drilling		BORING NO. BH-MU-2D	SHEET 1 OF 3
LOCATION 275' South of MU-2C		CONTRACT NO. 426-99-006		SURFACE ELEV. DATE 10/2/00	
SPOON 3	O.D. 8 3/8	I.D. Augers	CASING SIZE 1	HOLE TYPE	
WIMMER 14C	Safety		HAMMER	# FALL	
DRILLER P Pennell		SPECTOR D Howe		GROUND WATER LEVEL	
Date		Time		Depth	
10/2		12 ³⁰ p		4.5'	
				while Hand Augering	

CASING FOWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE	C.O.
	0				Asphalt crushed stone	0.0
land Auger		Hand Auger	Full		Fill - M-F Brown Sand Tr Silty Tr Gravel	0.4
	5				Fill - DK Gray clayey Silt & F Sand Tr Concrete Tr Gravel	1.0
	10	2-2	18"	1	Black & Brown clayey Silt, Little Gray organic silt & clay Tr Black Peat	10.0
	15				Bottom of Boring	
	20				All Soil checked with Proctor Meter, S#1 11-11.5' Saved for Testing Remaining Soil Discarded	
	25					

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
 2 — U = undisturbed; A = auger; OER = open end rod; V = vane
 3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

Sheet 2 of 3

OR T: PN- PDC Ports Fac

BORING No. BH-MU-2D

DATE: 10/2/00

FIELD READINGS BY: P. Hume

PID Model: $M_{1/2}$ RBE

[illegible]

THE PORT AUTHORITY OF N.Y. & N.J.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN-Port Ports Fee

LOCATION: ~~145'~~ South of BH-MW-2C

DATE: 10/2/00

BORING No: BH-MW-2D

TOTAL No. OF SAMPLES: 1 Soil

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE 10/2/00

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Soil Sample to 1-16oz jar

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT PN- Pto Ports Fac		NAME OF CONTRACTOR Craig Drilling		BORING NO. BH-MW-2E		SHEET 1 OF 3	
LOCATION E 25' NE of BH-MW-2B		CONTRACT NO. 426-99-006		DATE 10/2/00		SURFACE ELEV.	
SPOON 3 O.D. 2 3/8 I.D.		CASING SIZE Augers		HOLE TYPE 1		GROUND WATER LEVEL	
HAMMER 140 # FALL		HAMMER		# FALL			
DRILLER P. Pannoy		SPECTOR D. Howe		Date 10/2/00		Time 2:25	
				Depth 6.5		Remarks open hole at Dr Finish of Boring	

CASING FOWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE	
	0				Drill bit Grushed Stone	0.0 0.5 1.0
2nd Auger		Hand Auger	F 1/4		Fill - M-F Brown Sand, Tr Silt, Tr Gravel	
↓	5	↓	↓			
↓						
↓						
↓						
↓						
↓	10	1-2-2	18 1/2	1	Fill - Dk Brown Silt & M-F Sand, Tr Gravel (Auger cuttings)	10.0
					Black & Gray organic silt & clay, F F Sand	12.5
					Bottom of Boring	
	15				All Soil checked with PID Meter	
					S#1 11-11.5' saved for Testing	
					Remaining Soil discarded	
	20					
	25					

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
 2 — U = undisturbed; A = auger; OER = open end rod; V = vane
 3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

PR r: PN- Jtc Ports Fac

ORING No. BH-MW-2E

DATE: 10/2/00

FIELD READINGS BY: *D Howe*

PID Model: Min, RAE

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN- Pto Poll's Fr
LOCATION: #251 NE of BH-MW-2B DATE: 10/2/00
BORING No: BH-MW-2E TOTAL No. OF SAMPLES: 1 Soil

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE 10/2/00

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Soil Sample Fr 1-16oz jar

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT PN- Pto Ports Etc		NAME OF CONTRACTOR Craig Drilling		BORING NO. BH-MW-13A		SHEET 1 OF 3	
LOCATION 25' NW of MW-13				CONTRACT NO. 426-99-00		SURFACE ELEV.	
SPOON Hand Auger		CASING SIZE	HOLE TYPE 1	GROUND WATER LEVEL			
HAMMER		HAMMER		Date	Time	Depth	Remarks
# FALL		# FALL		9/7/00	11:30	Dry	
DRILLER P Pennell							
SPECTOR D Howe							
CASING OWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE		
	0				Asphalt Crushed Stone 0.0		
Hand Auger		Hand Auger	Full	1	Fill-M-P Sand, Tr Silty, Tr Gravel 3.0		
	5			2	Fill-M-P Dk Gray Sand, Little Organic Silty clay 5.0		
				3	Fill- Dk Gray organic silty clay & some F Sand 7.0		
					Bottom of Boring		
	10						
	15						
	20						
	25						

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used
2 - U = undisturbed; A = auger; OER = open end rod; V = vane
3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

PT: PN- Pto Ports Fac

BORING No. BH-Mu-13D

DATE: 9/7/00

FIELD READINGS BY: *D. Houchens*

PID Model: Mini RBE

[illegible]

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN-PDO PORTS F&C

LOCATION: #5' NW of MW-B

DATE: 9/7/00

BORING No: BH-MW-13A

TOTAL No. OF SAMPLES: 1 Soil

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE 9/7/00

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Soil Sample for 1-kg for

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Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT PN- Pto Ports Fac		NAME OF CONTRACTOR Craig Drilling		BORING NO. MU-13B		SHEET 1 OF 3	
LOCATION 5' NE of MU-13		CONTRACT NO. 426-99-006		DATE 9/7/00		SURFACE ELEV.	
POON Hand Auger I.D.	CASING SIZE	HOLE TYPE 1	GROUND WATER LEVEL				
NUMBER	HAMMER		Date	Time	Depth	Remarks	
# FALL	# FALL		9/7	1:15 P	dry		
DRILLER P. Parnell							
INSPECTOR D. Howe							

ASING DWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE	
	0				Asphalt crushed stone	0.0 0.5 1.0
and Auger		Hand Auger	Full	1	Fill- M-F Brown Sand, T.S.I., Tr Gravel	3.0
	5			2	Misc Fill- Sand, organic silty clay, Gravel, wood, Metal, Etc	
				3	Fill- DK Gray organic silty clay, Little F Sand	7.0
					Bottom of Boring	
	10					
	15					
	20					
	25					

All Samples checked with PIP Meter
SH 3 6IS- 7 Saved for Testing
Remaining Samples Discarded

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used
2 - U = undisturbed; A = auger; OER = open end rod; V = vane
3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

Sheet 2 of 3

RL 7: PN- Pto Ports Fac

BORING No. BH-MU-13B

DATE: 9/7/00

FIELD READINGS BY: D. Howe

PID Model: M_{in}, P, I, D

[illegible]

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN- Pto Ports Fee

LOCATION: ±5' NE of MW-13

DATE: 9/7/00

BORING No: BH-MW-13B

TOTAL No. OF SAMPLES: 1 Soil

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Soil Sample to 1-1603 Jan

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Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT		NAME OF CONTRACTOR		BORING NO.	SHEET 1 OF 3
LOCATION				CONTRACT NO.	SURFACE ELEV.
SPONGE		CASING SIZE	HOLE TYPE	GROUND WATER LEVEL	
HAMMER				Date	Time
# FALL		# FALL		Depth	Remarks
DRILLER					
INSPECTOR					
PN- Pto Ports Fac		Craig Drilling		BH-MU-13C	
± 5' South of MU-13				426-99-006	9/7/00
Hand Auger			1	9/7	2:15 PM Dry
P. Pennell					
D. Houe					
CASING BLOWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
	0				Asphalt Crushed Stone
Land Auger		Hand Auger	Full	1	Fill - M-F Brown Sand, Tr Silty, Tr Gravel
	5			2	Misc Fill - Sand, organic silty clay, Gravel, Wood, ETC
				3	Fill - DE Gray organic silty clay, Tr Rd clay, Silty, Tr Fines, Sand
	10				BOTTOM OF BORING
	15				All Samples checked with PID Meter, S# 3 G.T. - 7' Sample for Testing All Remaining Samples Discarded
	20				
	22				

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used
2 - U = undisturbed; A = auger; OER = open end rod; V = vane
3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

R T: PN- pto Ports Fac

BORING No. BH MW-13C

DATE: 9/7/00

FIELD READINGS BY: D Howe

PID Model: Min, RAE

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN- Pto Ports Fac

LOCATION: ± 5' South of MW-13

DATE: 9/7/00

BORING No: BH-MW-13C

TOTAL No. OF SAMPLES: 1 Soil

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE 9/7/00

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Soil Sample in 1-kg jar

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT PN- P&O Ports Fac		NAME OF CONTRACTOR Craig Drilling		BORING NO. BH-MU-13D		SHEET 1 OF 3	
LOCATION 25' South of BH-MU-13C		CONTRACT NO. 426-99-006		DATE 10/3/00		SURFACE ELEV.	
POON 3	CASING SIZE O.D. 2 3/8 I.D.	HOLE TYPE 1	GROUND WATER LEVEL				
HAMMER 140 # FALL 30	HAMMER # FALL		Date 10/3/00	Time 8:35	Depth 6.5	Remarks S # 1	
INSPECTOR P. Pennell D. Howe							

CASING DEPTH FEET	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
0					Asphalt crushed stone
2		Hand Auger	Full		
5					Fill - M-F Brown Sand, Tr Silt, Tr Gravel Misc Fill - Rip Rap, Silt, Sand, Gravel, ETC
11-13		11-13	10"	1	Tr F Black Sand 6.0 Fill - Red Brown clay, Silt, Some black & gray organic silt/clay (C)
10					Bottom of Boring
15					All Soil checked with P.D. Meter, Sample # 1 6.5-7' Saved for Testing Remaining Soil Discarded
20					
25					

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used
2 - U = undisturbed; A = auger; OER = open end rod; V = vane
3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

Sheet 2 of 3

PRC ∴ PN- Pto Ports Fac

ORING No. BH-MU-13D

DATE: 10/3/00

FIELD READINGS BY: D. Hume

PID Model: *M, RBE*

[illegible]

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ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN Pto Ports Fac

LOCATION: #25 South of BH-MW-13C

DATE: 10/3/00

BORING No: BH-MW-13D

TOTAL No. OF SAMPLES: 1 Soil

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE 10/3/00

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Soil Sample In H 1-163 file

THE PORT AUTHORITY OF NY & N.J.

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

SHEET 1 OF 3

PROJECT PIN- P&O Ports Fac	NAME OF CONTRACTOR Craig Drilling	BORING NO. BH-MU-13E	SURFACE ELEV. 10/13/00
LOCATION # 25' NW of BH-MU-13A	CONTRACT NO. 426-99-006	DATE 10/13/00	

SPOON 3 "O.D. 2 3/8" "I.D.	CASING SIZE 4	HOLE TYPE 4	GROUND WATER LEVEL			
HMMER 140 # FALL 30'	HAMMER # FALL		Date 10/13/00	Time Dry	Depth	Remarks
INSPECTOR P. Pennell D. Howe						

CASING DWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE	C.O.
					Asphalt crushed Stone	0.0 0.3 1.0
and Auger		Hand Auger	Full		Fill-M-F Brown Sand, Tr SILT, Tr Gravel	
	5				Misc Fill Rip Rap, Red Brown Clayey SILT, Black Gray organic SILT, clay, F-DE Gray Sand	6.0
		10-10	11"	1	Fill-Black & Gray organics, Dk Clay, Some Pb clayey SILT	7.0
					Bottom of Boring	
	10					
					All Soil checked with PID Meter	
					Sample #1 6.5-7.0' Sand for Testing, Remaining Soil discarded	
	15					
	20					
	25					

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used
2 - U = undisturbed; A = auger; OER = open end rod; V = vane
3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

② PIV PDU Ports Fgc

WORKING No. BH-MW-13E

DATE: 10/3/00

FIELD READINGS BY: *D Howe*

PID Model: *Min, PDS*

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ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN- Pdo Ports Fac

LOCATION: #25 N W & BH BH-MW-13A

DATE: 10/3/00

BORING No: BH-MW-13E

TOTAL No. OF SAMPLES: 1 Soils

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE 10/3/00

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Soil sample in 1-lb on fac

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section
BORING REPORT

PROJECT PN- Pto Ports Fac		NAME OF CONTRACTOR Craig Drilling		BORING NO. BH-MW-14A		SHEET 1 OF 3	
LOCATION 23' South of MW-14		CONTRACT NO. 426-99-006		DATE 9/7/00		SURFACE ELEV.	
SPOON and "O.D. Auger" "I.D."		CASING SIZE		HOLE TYPE 1		GROUND WATER LEVEL	
HAMMER # FALL		HAMMER # FALL		Date 9/7/00	Time 3⁰⁰	Depth Dry	Remarks
DRILLER P. Pennell		INSPECTOR D. Howe					

CASING DWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
	0				Asphalt crushed stone
		Hand Auger	Full	1	Misc Fill - Cinders, Sand, Gravel, Silt, Brick, Wood, etc.
					Bottom of Boring
	5				
	10				All Samples checked with PID Meter S#1 15'-2' Spaced for Testing Remaining Sample Discarded
	15				
	20				
	25				

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
 2 — U = undisturbed; A = auger; OER = open end rod; V = vane
 3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

Г: PN-PTC PortB Fac

BORING No. BH-mw-14A

DATE: 9/7/00

FIELD READINGS BY: *D. Howe*

PID Model: Mini RBE

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
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ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN - P20 Ports Fac
LOCATION: # 3' South of MW-17 DATE: 9/7/00
BORING No: BX-MW-17A TOTAL No. OF SAMPLES: 1

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE 9/7/00

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Soil Sample in 1-16 oz jar

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT PX- Pto Ports Fac		NAME OF CONTRACTOR Craig Drilling		BORING NO. BH-MW-14B		SHEET 1 OF 3	
LOCATION E 3' west of MW-14		CONTRACT NO. 426-99-006		DATE 9/8/00		SURFACE ELEV.	
SPOON Hand O.D. Auger I.D.		CASING SIZE 1		HOLE TYPE 1		GROUND WATER LEVEL	
HAMMER # FALL		HAMMER # FALL		Date 9/8/00	Time	Depth Dry	Remarks
DRILLER P Pennell							
SPECTOR D Howe							

CASING BLOWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE	
	0				Asphalt crushed stone	0.0 0.5 1.0
		Hand Auger	Full	1	Misc Fill - Cinders, Sand, concrete, silt, etc.	2.0
					Bottom of Boring	
	5					
	10				Sample checked with PID Meter 5' 1.5-2' Saved for Testing Remaining Sample Discarded	
	15					
	20					
	25					

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
 2 — U = undisturbed; A = auger; OER = open end rod; V = vane
 3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

**ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS**

RC : PN Pto Ports, Fac

LOGGING No. BH-Mu-14B

DATE: 9/8/00

FIELD READINGS BY: D/Howe

PID Model: Mini RAB

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
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THE PORT AUTHORITY OF N.Y. & N.J.

ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN-PJO Ports Fac

LOCATION: $\pm 3'$ west of MX-14

DATE: 9/8/00

BORING No: BN-MX-14B

TOTAL No. OF SAMPLES: 1 Soil

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Soil Sample in 1-bag for

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT PN- Pto Ports Fac		NAME OF CONTRACTOR Cragg Drilling		BORING NO. BN-MW-14C	SHEET 1 OF 3
LOCATION 3 East of MW-14		CONTRACT NO. 426-99-006		DATE 9/8/00	
SPRIG Hand O.D. Auger - I.D.	CASING SIZE	HOLE TYPE 1	GROUND WATER LEVEL		
HAMMER	HAMMER		Date	Time	Depth
# FALL	# FALL		9/8/00		Dry
DRILLER P. Pennell			Remarks		
INSPECTOR D. Howe					

CASING FOWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
	0				Asphalt crushed stone
		Hand Auger	Full	1	Misc Fill - Sand, Cinders, Gravel, Concrete, ETC
					Bottom of Boring
	5				
	10				Sample checked with PID Meter Sample #1 1.5-2' Saved for Testing Remaining Sample Discarded
	15				
	20				
	25				

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
 2 — U = undisturbed; A = auger; OER = open end rod; V = vane
 3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

70 PN- Pto Ports. Fac

DRING No. BH- MW-14C

DATE: 9/8/00

FIELD READINGS BY: *O. Howe*

PID Model: Mini RBE

[illegible]

THE PC&T AUTHORITY OF N.Y. & N.J.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN- Pto Ports Fnc

LOCATION: #3' East of M4-14

DATE: 9/8/00

BORING No: BM-M4-14 C

TOTAL No. OF SAMPLES: 1 Soil

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Soil Sample In 1-16oz jar

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT BN- Pto Ports Fac		NAME OF CONTRACTOR Craig Drilling		BORING NO. BH-MU-14D	SHEET 1 OF 3
LOCATION 3' North of MU-14		CONTRACT NO. 406-99-006		SURFACE ELEV. DATE 9/8/00	
POON Hand D. Auger I.D.	CASING SIZE	HOLE TYPE L	GROUND WATER LEVEL		
HAMMER	HAMMER		Date	Time	Depth
# FALL	# FALL		9/8		Dry
DRILLER P. Pennell			Remarks		
SPECTOR D. Howe					

CASING FOWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
	0				Asphalt Crushed Glass
		Hand Auger	Full	1	Misc Fill - Sand, Silt, Gravel, Wood, MTA, ETC 2.0
					Bottom of Boring
	5				
	10				Sample checked with PID Meter, Sample #1 1.5-2' Saved for Testing, Remaining Sample Discarded
	15				
	20				
	25				

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used
 2 - U = undisturbed; A = auger; OER = open end rod; V = vane
 3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

Sheet 2 of 3

RC : PN- Pto Ports Fac

DRING No. BH-NW-14D

DATE: 9/8/00

FIELD READINGS BY: D/Kou

PID Model: Mini PAB

[illegible]

THE PORT AUTHORITY OF N.Y. & N.J.

ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 7

PROJECT: *PN-PJO PORTS FAC*

LOCATION: *± 3' North of MW-14*

DATE: *9/8/00*

BORING No: *BH-MW-14D*

TOTAL No. OF SAMPLES: *1 Seal*

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE *9/8/00*

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Seal Sample in 1-bag for

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT PN - Pto Ports Fac	NAME OF CONTRACTOR Craig Drilling	BORING NO. BH-MW-14E	SHEET 1 OF 3
CATION 25' WAS TOP BH-MW-14B	CONTRACT NO. 426 99-006	DATE 10/3/00	SURFACE ELEV.

SPONGE and "O.D. Auger" I.D.	CASING SIZE	HOLE TYPE 1	GROUND WATER LEVEL	
MMER	HAMMER		Date	Time
# FALL	# FALL		10/3	10³⁰
DRILLER P. Perrelli			Depth	Remarks
SUPERVISOR D. Hume				

CASING FOWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE	
					Asphalt Crushed Stone	0.0 0.9 1.0
		Hand Auger Fill		1	Misc Fill - Cinders, Crushed Stone, Sand, Silt, Mortar, ETC	
					Be Dermal Boring	
	5				S#1 checked with PID Meter	
					1.5' - 2.0' Squal for Testing	
					Remaining Sample Discarded	
	10					
	15					
	20					
	25					

NOTES: 1 - Length recovered; 0* - Loss of Sample, T - Trap used
2 - U = undisturbed; A = auger; OER = open end rod; V = vane
3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

Sheet 2 of 3

DATE: 10/3/00

PID Model: MinRPDE

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
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THE PORT AUTHORITY OF N.Y & N.J.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN-020 Ports Fac
LOCATION: #25' west of BA-MW-140 DATE: 10/7/00
BORING No: BA-MW-13E TOTAL No. OF SAMPLES: (1 Soil)

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE 10/7/00

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Soil Sample in 1-lb bag for

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT P/N Pto Ports Fac		NAME OF CONTRACTOR Craig Drilling		BORING NO. BH-MU-14F	SHEET 1 OF 3
LOCATION E 25' South of BH-MU-14A		CONTRACT NO. 726-99-006		DATE 10/3/00	
SPOON Hand O.D. Auger I.D.		CASING SIZE	HOLE TYPE 1	GROUND WATER LEVEL	
HAMMER # FALL		HAMMER # FALL		Date 10/3	Time 11 ⁰⁰
DRILLER P. Pennell				Depth Dry	Remarks
INSPECTOR D. Hove					

CASING OWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE	
					Asphalt	0.0
					Crushed Stone	0.3
		Hand Auger	Full	1	Misc Fill - Chert, Sand, Gravel, Brick, Concrete, ETC	1.0
						2.0
					Bottom of Boring	
	5					
	10					
	15					
	20					
	25					

S#1 checked with PID Meter
 1.5'-2.0' Saved for Testing
 Remaining Sample Discarded

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used
 2 - U = undisturbed; A = auger; OER = open end rod; V = vane
 3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

THE PORT AUTHORITY OF NEW YORK AND GEORGE TOWN

Sheet 2 of 3

PR T: PN- Pdo Ports Fgc

ORING No. BH-Mu-14F

DATE: 10/3/00

FIELD READINGS BY: D Howe

PID Model: *Mini PBE*

[illegible]

THE PORT AUTHORITY OF N.Y. & N.J.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN-Pdc Ports Fac

LOCATION: ±25' South of BH-NW-14A

DATE: 10/3/00

BORING No: BH-NW-14F

TOTAL No. OF SAMPLES: 1 Soil

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE 10/3/00

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Soil Sample in 1-bag per

T. PORT AUTHORITY OF NY & N.J.

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

PROJECT		NAME OF CONTRACTOR		BORING NO.	SHEET (OF)
PN- Pto Ports Fac		Craig Drilling		BH-MW-14G	SURFACE ELEV.
LOCATION		CONTRACT NO.		DATE	
= 25' North of BH-MW-14 D		426-95-006		10/12/00	
SPONGE	CASING SIZE	HOLE TYPE	GROUND WATER LEVEL		
Hand O.D. Auger I.D.		1	Date	Time	Depth
HAMMER	HAMMER		10/12/00	11:23	Dry
# FALL	# FALL				
DRILLER			Remarks		
P. Pennell					
SPECTOR					
D. Howe					
CASING OWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS
					LINE LOCATES CHANGE OF PROFILE
					Asphalt
					Crushed Stone
		Hand Auger	Full	1	Fill - IX - F - LT Brown Sand, Tr Silt, Tr Gravel, Tr Cobles
					Bottom of Boring
	5				
					Sample #1 checked with PID Meter,
					1.5-2.0' Sounded for Tag Jax, Remains
					Sample Discarded
	10				
	15				
	20				
	25				

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

Sheet 2 of 3

PROJECT: PNY - P2C Port5 Fm

OR. No. BH-MU-146

DATE: 10/3/02

FIELD READINGS BY: *D. Howe*

PID Model: *Mini RAB*

FMC Agreement No.: 201132-005 Effective Date: Monday, June 19, 2006
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THE PORT AUTHORITY OF N.Y. & N.J.

ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: PN Pto Port J Fac

LOCATION: #25' North of BN-MW-14D

DATE: 10/3/00

BORING No: BN-MW-14 G

TOTAL No. OF SAMPLES: 1 Soil

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE 10/3/00

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Soil Sample for 1-keg for

PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section
BORING REPORT

PROJECT <i>DN- Port Piers Fac</i>		NAME OF CONTRACTOR <i>Craig Drilling</i>		BORING NO. <i>BH-MW-14H</i>		SHEET <i>1</i> OF <i>3</i>	
LOCATION <i>25' East of BH-MW-14C</i>		CONTRACT NO. <i>426-99-006</i>		DATE <i>10/3/06</i>		SURFACE ELEV.	
SPOON <i>Land O.D. Auger I.D.</i>		CASING SIZE		HOLE TYPE <i>1</i>		GROUND WATER LEVEL	
HAMMER # FALL		HAMMER # FALL		Date <i>10/3</i>	Time <i>12:15</i>	Depth <i>Dry</i>	Remarks
DRILLER <i>P. Pennell</i>							
INSPECTOR <i>D. Howe</i>							

CASING FOWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE	
	0				<i>Asphalt</i>	<i>0.0</i>
					<i>Crushed Stone</i>	<i>0.5</i>
		<i>Hand Auger</i>	<i>Full</i>	<i>1</i>	<i>Misc Fill - Crushed, Metal, Sand Gravel, Etc</i>	<i>2.0</i>
					<i>Bottom of Boring</i>	
	5					
	10				<i>Sample #1 checked with PID Meter 1.5-2.0' Spaul for Testing Remaining Sample Discarded</i>	
	15					
	20					
	25					

NOTES: 1 - Length recovered; 0" - Loss of Sample, T - Trap used
2 - U = undisturbed; A = auger; OER = open end rod; V = vane
3 - Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

Sheet 2 of 3

Topic: PN-junction Diodes

IOUING No. BM-MW-14 H

DATE: 10/3/00

FIELD READINGS BY: DH

PID Model: M₁ RAB

[illegible]

THE PORT AUTHORITY OF N.Y. & N.J.

ENGINEERING DEPARTMENT MATERIALS ENGINEERING DIVISION CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: *PN POC Ports Fac*

LOCATION: *#25' West of BH-MW-14C*

DATE: *10/3/00*

BORING No: *BH-MW-14H*

TOTAL No. OF SAMPLES: *1 Soil*

SIGNATURE OF ALL

PRESENT AT SAMPLING

RELINQUISHED

DATE *10/3/00*

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Soil sample in 1-1603 for

ACKNOWLEDGEMENTS

FOR THE PORT AUTHORITY

STATE OF NEW YORK)
)ss.
COUNTY OF NEW YORK)

On the 5th day of October in the year 2004, before me, the undersigned, a Notary Public in and for said state, personally appeared RICHARD M. LARRABEE personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument. **DIRECTOR, PORT COMMERCE DEPT.**

Marie M. Edwards
(notarial seal and stamp)

FOR THE LESSEE Marie M. Edwards
Notary Public, State of New York
No. 01ED4959693
Qualified in Kings County
Commission Expires Jan. 6, 2006

STATE NEW JERSEY)
)ss.
COUNTY OF ESSEX)

On the 5th day of OCTOBER in the year 2004, before me, the undersigned, a Notary Public in and for said state, personally appeared DONALD P. HAMM personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Andrea Goc
(notarial seal and stamp)

ANDREA GOC
NOTARY PUBLIC OF NEW JERSEY
Commission Expires 2/27/07

**UNANIMOUS WRITTEN CONSENT
OF MANAGERS OF
PORT NEWARK CONTAINER TERMINAL L.L.C.**

The undersigned, being all of the managers of Port Newark Container Terminal L.L.C., a Delaware limited liability company (the "Company"), acting in lieu of a meeting pursuant to Article 9.8 of that certain Limited Liability Agreement dated as of August 1, 2000, as amended, by and among P&O Ports North America Inc., P&O Nedlloyd B.V., and the Company, hereby consent to the adoption of the following resolutions and actions set forth herein as of the date and year set forth below:

WHEREAS, there has been presented to the managers for their consideration a substantially final draft of a certain supplement no. 5 (the "Lease Supplement") to the Lease Agreement dated December 1, 2000 (No. L-PN-264) (the "Lease") between the Port Authority of New York and New Jersey (the "Port Authority") and the Company, relating to the addition of a 15-acre area to the Lease (the "Area A1A"), as such Area A1A is more fully depicted on Exhibit A-1a attached to the Lease Supplement.

NOW, THEREFORE, it is

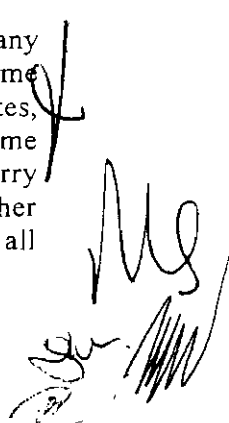
RESOLVED, that the form, terms and provisions of the Lease Supplement be, and hereby are, authorized, adopted and approved, in such form and containing such terms and conditions, with such changes, additions, deletions, amendments or modifications, as the manager or President executing the same deems necessary, proper or advisable; and it is further

RESOLVED, that all actions taken by the managers or President of the Company prior to the date of this Unanimous Written Consent which are within the authority conferred hereby are ratified and approved; and it is further

RESOLVED, that the managers and President of the Company be, and they hereby are, authorized and directed to take such action and execute and deliver on behalf of the Company such documents and/or instruments as may be necessary to accomplish the intent of the resolutions herein; and it is further

RESOLVED, that the managers and President of the Company be, and each of them acting alone hereby is, authorized, empowered and directed to execute, deliver and cause the performance of the Lease Supplement, in the name and on behalf of the Company, with such changes therein, deletions therefrom or additions thereto as the manager or President executing the same shall approve, the execution and delivery thereof to be conclusive evidence of the approval and ratification thereof by such manager or President and by the Board of Managers; and it is further

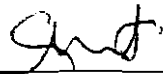
RESOLVED, that the managers and President and other officers of the Company be, and each of them acting alone hereby is, authorized and empowered to take, from time to time in the name and on behalf of the Company, such actions and execute and deliver such certificates, instruments, notices and documents, including amendments thereto, as may be required from time to time or as such manager or officer may deem necessary, advisable or proper in order to carry out and perform the obligations of the Company under the Lease Supplement, or any other instrument or documents executed pursuant to or in connection with the Lease Supplement; all



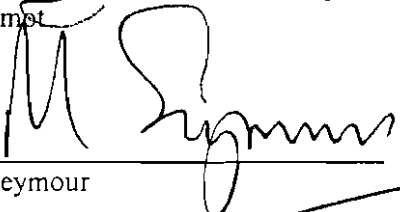
such certificates, instruments, notices and documents to be executed and delivered in such form as the manager executing the same shall approve, the execution and delivery thereof by such manager to be conclusive evidence of the approval and ratification thereof by such manager or officer and by the Board of Managers of the Company.

The actions taken by the execution of this Unanimous Written Consent shall have the same force and effect as if taken at a meeting of the Board of Managers of the Company duly called and constituted in accordance with the laws of the State of Delaware.

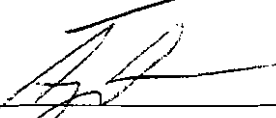
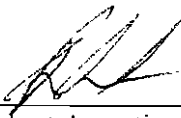
IN WITNESS WHEREOF, the undersigned have executed this Unanimous Written Consent as of this 21 day of September, 2004.



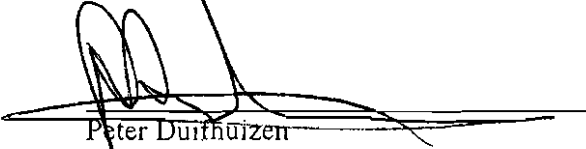
Gary Willmet



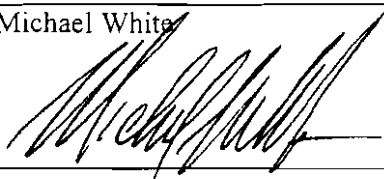
Michael Seymour



Robert Agresti



Peter Duithuizen

Michael White


PORT NEWARK CONTAINER TERMINAL, L.L.C.

CERTIFICATE OF MANAGER


For purposes of reliance by The Port Authority of New York & New Jersey (the "Port Authority") in connection with supplement nos. 4 and 5 (collectively, the "Lease Supplements") to the Lease Agreement dated December 1, 2000 (No. L-PN-264) between the Port Authority and Port Newark Container Terminal, L.L.C., a Delaware limited liability company (the "Company"), the undersigned hereby certifies that he is a manager of the Company, and further certifies that Don Hamm, whose specimen signature appears below, is the duly appointed President of the Company and that he is authorized to execute and deliver each of the Lease Supplements on behalf of the Company.

<u>Name</u>	<u>Title</u>
Don Hamm	President

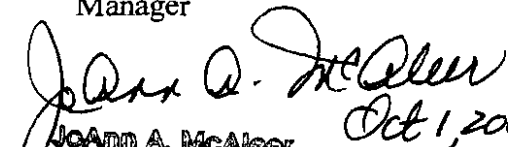
Specimen Signature



IN WITNESS WHEREOF, the undersigned has executed this Certificate as of this 29th day of September, 2004.



Gary Willmot
Manager


JoAnn A. McAleer
NOTARY PUBLIC OF NEW JERSEY
Commission Expires 12/14/2007
Oct 1, 2004